SMITHSONIAN
Zoogoer
SPRING 2017

Wild Again

Several species once extinct in the wild now roam free again, thanks to Zoo scientists.

» Farewell to Bao Bao
» Portfolio: One Zoo, Many Journeys
» Kids: Rescued Animals

The magazine for members of **FONZ** | FRIENDS OF THE NATIONAL ZOO

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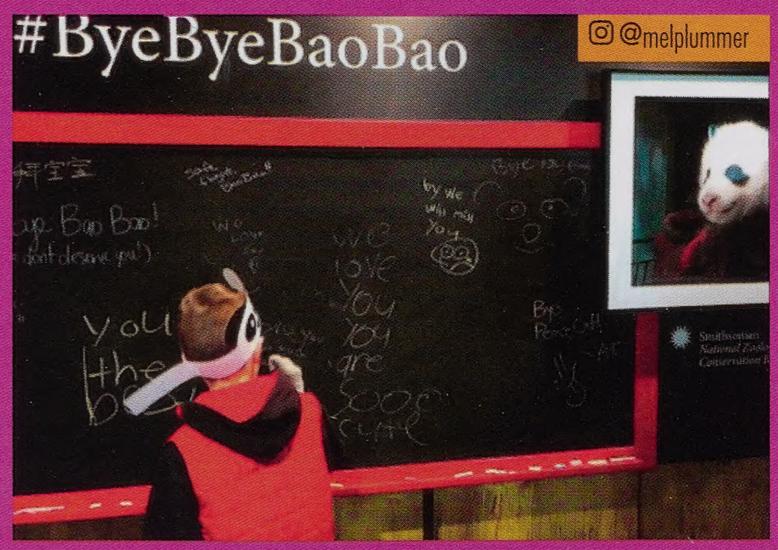

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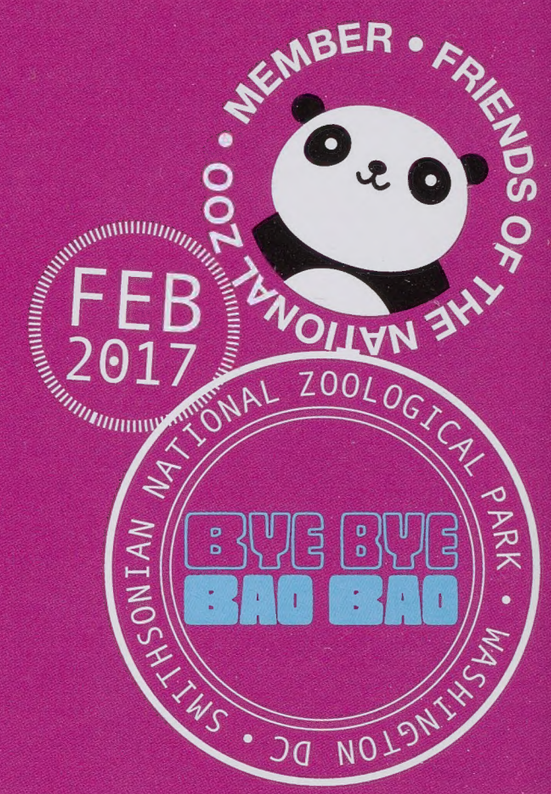

"Buh bye Bao Bao! Safe travels!"

@Lobby4U

It was a BITTERSWEET BYE BYE to BAO BAO

Norma Valenti

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Suzanne Nichter

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Tell us!

Use #WeAreFONZ and tell us WHAT WOULD YOU MOST LIKE TO GET OUT OF YOUR FONZ MEMBERSHIP.

"Thanks for all of the memories and safe journey"

@jacabanilla

SMITHSONIAN Zoogoer

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GIL MYERS/NZP

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SMITHSONIAN
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FONZ Friends of the National Zoo

The Friends of the National Zoo helps the Smithsonian's National Zoo and Conservation Biology Institute save species by raising funds to support their mission, providing educational and fun experiences, and inspiring our members and guests.

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Smithsonian **National Zoological Park** is located at 3001 Connecticut Ave., N.W., Washington, D.C., 20008-2537. Weather permitting, the Zoo is open every day except December 25. For hours and other information on visiting the Zoo, go to **nationalzoo.si.edu.**

Membership in FONZ supports the animal care, conservation, and educational work of the Smithsonian's National Zoo. It also offers many benefits: a *Smithsonian Zoogoer* subscription, discounts on shopping and events, discounted or free parking, and invitations to special programs and activities. To join, call 202.633.2922, or visit **fonz.org/join.**

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On the cover: The Smithsonian Conservation Biology Institute is home to 12 scimitar-horned oryx, and SCBI scientists are helping to reintroduce the species—once classified as extinct in the wild—into its African habitat.
PHOTO BY DOLORES REED/NZP

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CONSERVATION SENSATION

Spring is a time of rebirth, new starts, and—perhaps best of all—the chance to see baby animals. Redd, the first orangutan born here in 25 years, is growing fast. Sea lion pup Catalina has her first birthday coming up in June. We have a new baby red-rumped agouti at the Small Mammal House. And Kara, a female gray seal, had a pup earlier this year, leading to a Twitter flurry of cute animal pictures.

Beyond the animal babies in our outstanding care here, we also need to help protect those out in the wild where poaching, habitat loss, and conflicts with humans are causing animals to be killed at alarming rates. Thanks to your support, FONZ launched Conservation Nation—a new way for donors to target their gifts specifically for global conservation efforts by Zoo and Smithsonian Conservation Biology Institute scientists.

In the first six months of the program, you've already donated tens of thousands of dollars, which are now being put to good use saving species, such as Asian elephants in Myanmar. Fewer than 2,000 survive there. You also helped us conserve Andean bears in Peru, another vulnerable species that needs our help.

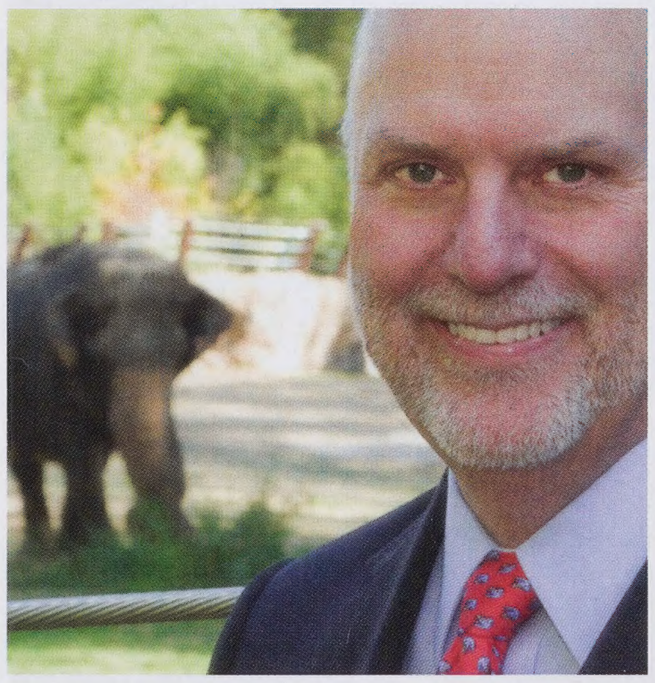
To me, that's the Zoo and FONZ at our best—a fantastic collection of animals (including some new babies) being cared for by a team that's second to none, financial and emotional support from devoted FONZ members, and conservation donations for our scientists' work with some of the world's most threatened species.

Many thanks, as always.

COURTNEY SMITH/FONZ

Lynn Mento, Executive Director
Friends of the National Zoo

BUILDING A BETTER ZOO



MEHGAN MURPHY/NZP

Dennis Kelly, Director
Smithsonian's National
Zoological Park

The zoo is like a living organism—always changing. The animals in the collection change, of course, but we're also constantly striving to build a better Zoo, one that is more enriching—and safer—for both animals and visitors.

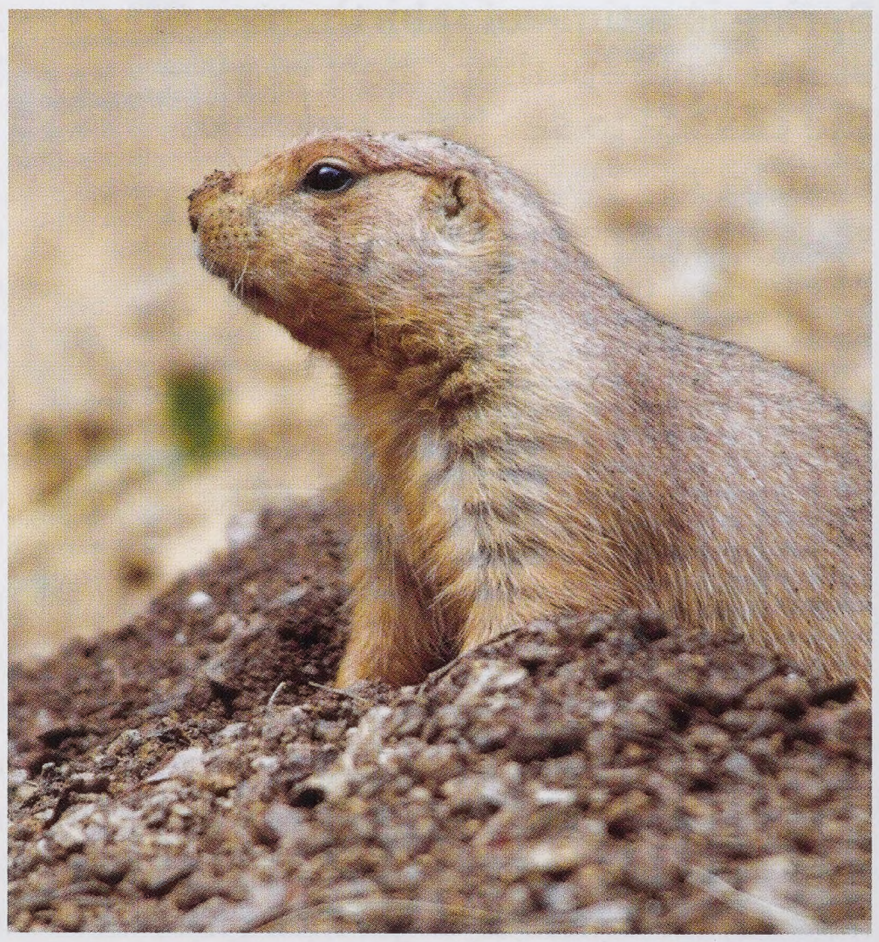
We're especially excited about the renovation of the historic Bird House. That 1928 building is now closed for a major, multi-year redesign. The new exhibit, "Experience Migration," will be far more interactive, highlighting the pioneering work of the Smithsonian Migratory Bird Center. It should reopen in 2020.

"Experience Migration" is all about conservation. Our scientists are studying what happens when migratory species' flights are affected by changes in weather patterns and food shortages. Studying these aspects of migration—and sharing our findings with visitors—can raise awareness of the challenges migratory songbirds face and inspire people to make a difference.

The truth is, a lot of efforts—including those led by the Smithsonian—are making a difference. This April, to celebrate Earth Day, the Smithsonian will host the Earth Optimism Summit in Washington, D.C. Leading scientists and environmentalists will discuss how to improve the health of species and ecosystems around the world. The summit includes opportunities for you to take part; you can find them at ***earthoptimism.si.edu/public-events.***

You can also join the conversation by following the hashtag ***#EarthOptimism*** on social media and sharing summit stories with friends who share our passion for Earth's health.

Spring Into Excitement at the Zoo



ANN BATDORF/NZP

Prairie Dogs Are Popping Up
Days are growing warmer, and the Zoo's popular prairie dogs are emerging from underground. Watch them settle into spring in their outdoor exhibit on **Olmsted Walk**. *fonz.org/prairiedog*

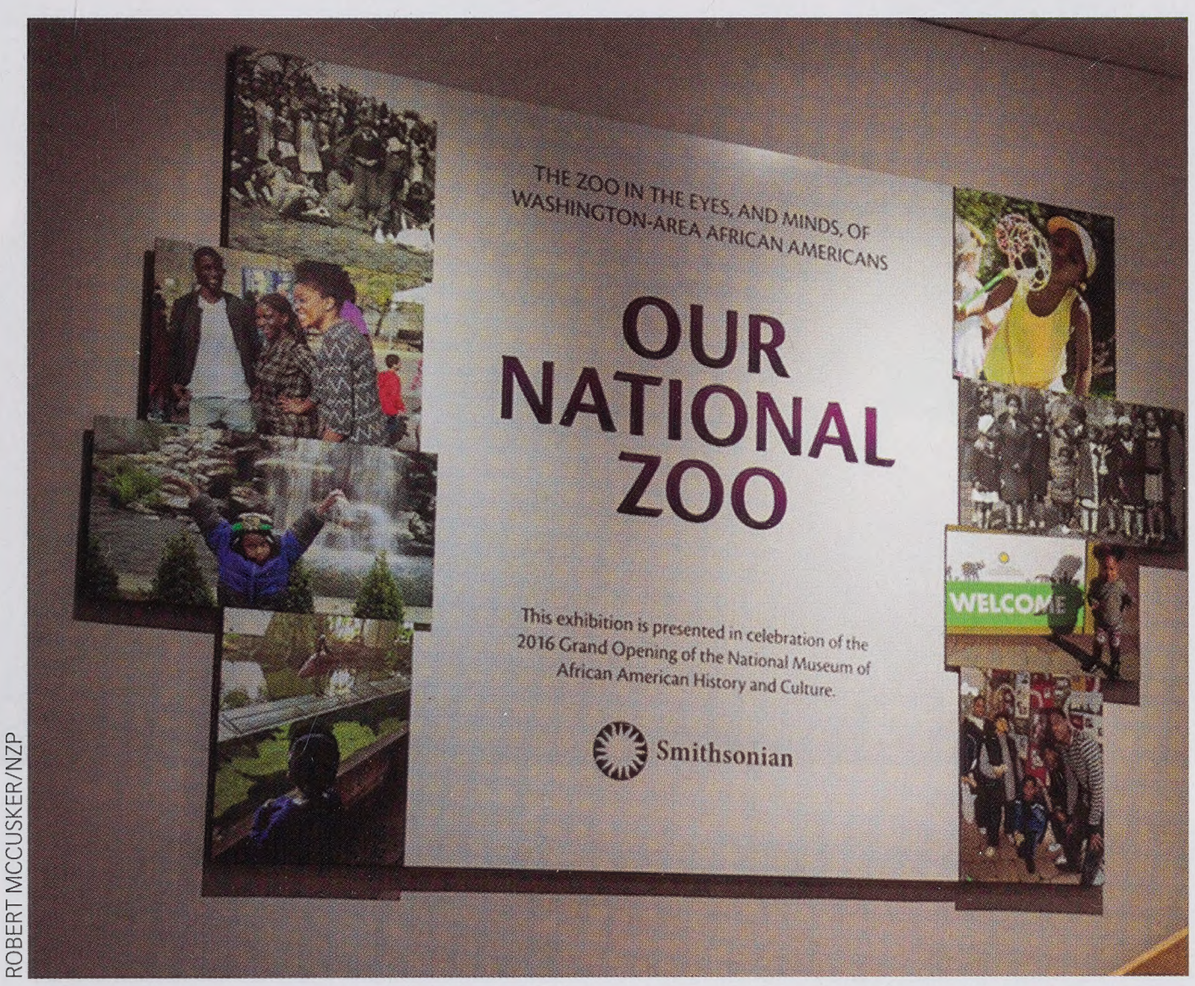
JACQUELINE CONRAD/NZP

Meet Our Twitter Star
Born on January 21, the Zoo's gray seal pup went viral when the Zoo tweeted her heart-meltingly cute photo a few days later. Using the hashtag #CuteAnimalTweetOff, zoos and aquariums around the country vied to post the cutest image. Drop by **American Trail** after the pup makes her debut later this spring to see the face that launched a thousand tweets. *fonz.org/sealpup*

MATTHEW SPENCE/NZP

Redd Alert
The Zoo's youngest orangutan—Redd, born on September 12, 2016—is growing larger and livelier. His mom, Batang, has been allowing him to explore the exhibit and get to know the other apes. Visit the **Great Ape House** to watch him go and grow. *fonz.org/redd-update*

Exhibit: "Our National Zoo"
In celebration of the opening of the National Museum of African American History and Culture—the latest jewel in the Smithsonian crown—the Zoo's **Visitor Center** is offering a free and engaging look at the park's place in the hearts of families in the D.C. area.



ROBERT MCCUSKER/NZP

Easter Monday | APRIL 17
Celebrating Easter Monday at the Zoo is one of Washington's oldest traditions, stretching back more than a century. Join us for a free egg hunt, animal demonstrations, a chance to meet the Easter Panda, and more. ***fonz.org/eastermonday***

MEHGAN MURPHY/NZPT

MEHGAN MURPHY/NZP

Earth Day | APRIL 22
We have one planet, and it needs our care. Come honor Mother Earth and learn how to keep her in good health at our free festival. ***fonz.org/earthday***

JIM JENKINS/NZP

ZooFari, Sponsored by GEICO | MAY 18
Dine for wildlife as the area's finest restaurants and vintners offer tastes of their mouth-thrilling creations. ***fonz.org/zoofari***

CONNOR MALLON/NZP

A Brand-New Bird House

Time for one last look at some of the Zoo's birds. Outdoor bird exhibits—including flamingos, cranes, and kori bustards—will close this spring. After that, both the indoor and outdoor exhibits will be closed for several years while the Zoo transforms the Bird House (originally built in 1928) into "Experience Migration."

This $55 million, state-of-the-art exhibition about birds in the Americas will draw on and publicize the pioneering work of the Smithsonian Migratory Bird Center. More than $10 million of the project cost will come from private donations and the support of FONZ members like you. Thank you!

Learn more: ***fonz.org/birdhouse***

STOP, LOOK, AND LISTEN

How does human activity change the sights and sounds of a healthy forest? SCBI researchers recently posed that question to gauge the effects of drilling for natural gas on biodiversity in a Peruvian rainforest. The team used camera traps to take photos of large mammals. They also recorded two-week "soundscapes" of the area during each phase of the drilling project.

Over two years, the traps captured a quarter of a million images of more than 30 species of mammals. Audio recorders documented some 1,600 hours of forest sounds. They included the calls of more than 110 bird species along with 12 types of amphibians.

The team is still reviewing the data, but early indications suggest that while some animals moved away from the drilling site, others moved in. The team published its initial acoustic study results recently in the journal *Ecological Indicators*.

Learn more: ***fonz.org/peru-sounds***

SCBI CAMERA TRAP

Three Cheers for Deer

This fall, SCBI welcomed three Eld's deer fawns. Eld's deer are an endangered species that once roamed across Southeast Asia. Today, due to agriculture, logging, and other human activities, just 1,500 remain in the wild, mostly in Myanmar and Cambodia.

Smithsonian researchers are working directly with colleagues in Myanmar to study and conserve the species, through radio-tracking, artificial insemination of animals in captivity, in vitro fertilization, and other advanced measures. Since 1980, SCBI has witnessed the births of 145 Eld's deer fawns.

Learn more: ***fonz.org/fawns***

DOLORES REED/NZP

BEI BEI RECOVERS

Bei Bei is recovering nicely from emergency surgery in late November. The cub was showing signs of stomach discomfort and nausea—not eating and sleeping more than normal. Anti-nausea medicine didn't clear up the problem, so Bei Bei was taken to the vet hospital, where a radiologist performed an ultrasound of his stomach and bowels.

It revealed a blockage in the bear's small intestine: a dense, lemon-sized mass of chewed bamboo. The care team realized that the blockage wouldn't clear up on its own, so they performed life-saving surgery to remove it.

The recovery process included a modified diet—apples, sweet potatoes, and other soft foods—before he could handle bamboo again. "I'm extremely proud and thankful for our team of keepers, veterinarians, animal care staff, volunteer medical experts, and all staff," said Zoo Director Dennis Kelly.

Learn more: ***fonz.org/beibei***

ALYSON SNODGRASS/NZP

ANN BATDORF/NZP

HELPING ORANGUTANS STAY HEALTHY

Like humans, orangutans are prone to bacterial infections. These can be tricky to diagnose and treat, often persisting for years with minimal symptoms. Meantime, the infection silently saps the animal's health and may shorten its life.

Traditionally, such ailments would be diagnosed by anesthetizing the ape and running a variety of tests. SCBI veterinary medical officer Priscilla Joyner is working with Carolyn Cray and her colleagues at the University of Miami to find a faster, less invasive alternative.

Toward that end, the team is refining techniques for detecting acute phase proteins, which damaged or infected cells release into the bloodstream. Their presence could indicate an infection and even help veterinarians determine whether it is bacterial or viral.

Another key component of the endeavor has been the success of Great Ape House staff in training orangutans to sit still for blood draws while awake. That makes the process much faster and less stressful for both patients and caregivers.

Preliminary results indicate that testing for acute phase proteins can indeed serve as a vital diagnostic tool. The next step is expanding the study to include a wider range of individual orangutans. The research seems likely to improve the apes' health in zoos and sanctuaries.

Learn more: ***fonz.org/orang-study***

Nut Mix

The Zoo's new red-rumped agouti needed a name, and you responded! The Zoo's other agoutis all have nut-themed names: Pistachio (dad), Hazelnut (mom), and Coconut (sibling). So a Twitter poll invited people to select one of four nutty options: Peanut, Pecan, Cashew, Walnut. The winner, with 36 percent of the nearly 4,000 votes cast, is Peanut.

Similar in appearance to guinea pigs, agoutis are rodents native to South America. This spring they'll go back on exhibit at the Small Mammal House.

Learn more: ***fonz.org/agouti***

CLYDE NISHIMURA/NZP

A WIN FOR "WASHED ASHORE"

Congratulations to FONZ staff on the education and volunteer management team for winning the prestigious Smithsonian Education Innovation Award for 2016. FONZ won for its work on "Washed Ashore: Art to Save the Sea," last summer's temporary exhibit of giant marine animals made entirely from ocean trash.

To support the exhibit, the team developed new iPad-based educational materials that taught visitors the scope of the problem of marine debris and encouraged them to change their behaviors. Over 14 weeks, "Washed Ashore" volunteers contributed more than 2,700 hours and spoke with 81,300 Zoo visitors.

CONNOR MALLON/NZP

THE Z LIST

2,064,000 live crickets

73,444 lbs. of seafood

100,000 frozen mice

10,400 live fish

105,000 lbs. of meat

768 frozen rabbits

4,940,000 mealworms

114,400 lbs. of produce

When Mike Maslanka goes grocery shopping, he buys in bulk—big-time. As head of the Zoo's nutrition team, Maslanka oversees the feeding of some 1,800 animals. Over a year, they put away astounding amounts of food. Just a few examples above to whet your intellectual appetite.

JESSIE COHEN/NZP

MEHGAN MURPHY/NZP

MEHGAN MURPHY/NZP

We're racing to save species, and we need your support to meet our $80 million goal. Can you help us raise $7 million in 7 months?

Help Us Cross the Finish Line!

Over the past several years of the Smithsonian Campaign, you've contributed over $73 million to benefit the National Zoo and Conservation Biology Institute in many ways, including . . .

1 ENDOWED DIRECTORSHIP: the John and Adrienne Mars Director, Smithsonian Conservation Biology Institute

2 NEW BREEDING AND RESEARCH FACILITIES, one for clouded leopards, another for red pandas

3 MILLION DOLLARS toward the creation of *Experience Migration*—the Zoo's future new Bird House and migratory bird exhibit

5 SMITHSONIAN SECRETARY'S SCHOLARS—scientists poised to make the next great conservation discoveries

14 NEW OR SIGNIFICANTLY UPGRADED ZOO EXHIBITS that boost animal well-being and visitor experience, such as a new indoor enclosure for red pandas and the forthcoming electric fishes exhibit in Amazonia

43 NEW ESTATE PLAN PLEDGES to sustain our vital work to save species

Ready to join the race against extinction? Donate online or check out the Ways to Help section.

CONTRIBUTE TODAY: nationalzoo.si.edu/support

MEHGAN MURPHY/NZP

Ways to Help

Play an integral role in supporting the critical work we do to save species around the world by joining one of our three premier levels of **Council Membership**. As a Council Member, you will be supporting our conservation mission while enjoying many exclusive membership benefits.
For more information, please call 202.633.3290

Have you made a provision in **your will** for the Zoo, or would a **charitable annuity** help you to meet your financial goals? Please let us know. We would be delighted to welcome you into our Circle of Life Society.
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For more information, please call 202.633.4443

Your Zoo is a leader in SAVING SPECIES, including animals that went extinct in the wild.

Wild AGAIN

BY VALERIE MAY

ABAKAR (BOBBI) ZAID/SAHARA CONSERVATION FUND

ABAKAR (BOBBI) ZAID/SAHARA CONSERVATION FUND

ABAKAR (BOBBI) ZAID/SAHARA CONSERVATION FUND

WildAGAIN

ENVIRONMENT AGENCY- ABU DHABI

ENVIRONMENT AGENCY- ABU DHABI

Washington, D.C., is notorious for wordiness: long speeches, verbose vision statements, ponderous position papers, and the like. So it was a feat fantastic when the Smithsonian's National Zoo and Conservation Biology Institute summed up its complex work in three stark words: "We save species."

Saving species lies at the heart of everything the Zoo and SCBI do: participating in Species Survival Plans through the Association of Zoos and Aquariums, conducting pioneering research, creating "insurance" populations of endangered species, educating the public, and more.

Saving species can also mean bringing an animal back from the edge of extinction. Thanks to Smithsonian scientists and their partners at other zoos, several species once declared extinct in the wild have been returned to their habitats. For each of these creatures, the trip from wilderness to Zoo to back into the wild has been a tale of serendipity, luck, and inspiring commitment by many people and institutions. Here are three success stories.

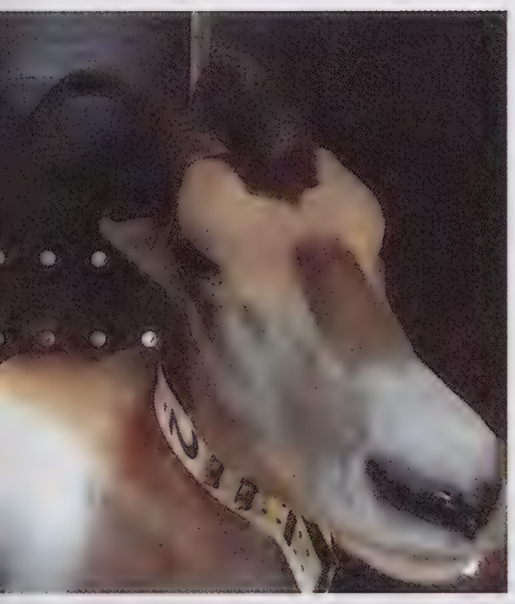
The Lost Unicorn?

Tall, pale, and stately with long horns that arc like swords, scimitar-horned oryx may have inspired the legend of the unicorn. And they've been nearly as rare in recent decades.

At one point, a million scimitar-horned oryx may have roamed across North Africa. As recently as the 1930s, a herd of 10,000 scimitar-horned oryx was reported in Chad. Population estimates in the 1970s ranged from 4,000 to 6,000. The species was later given a grim conservation classification—extinct in the wild. The scimitar-horned oryx was the largest mammal to suffer that fate in the last 30 years.

Every extinction hurts, but the scimitar-horned oryx was a particular jolt, given its astounding ability to endure in a hostile environment. In a landscape that may receive only a few tablespoons of rain a year, these oryx have evolved to take advantage of the morning dew and can go months without drinking water. They also have the ability to raise their body temperature as high as 115°F while still keeping the brain cool. That means they sweat little, which further conserves water.

Fortunately, scimitar-horned oryx thrive in human care, and there are thousands across the globe, including a herd of 21 in Front Royal. They descend from a group of 40 to 50 founders that were captured in Chad in the 1960s, raising concerns about genetic diversity.



ENVIRONMENT AGENCY- ABU DHABI

ENVIRONMENT AGENCY- ABU DHABI

OPENING SPREAD: **Scimitar-horned oryx in a re-introduction enclosure in Chad; they will be released into the wild later this year.**

LEFT: **The second group of scimitar-horned oryx were shipped from Abu Dhabi to a game reserve in Chad in late 2016.**

BELOW: **The SCBI facility in Front Royal is home to 21 oryx, a species that — luckily — thrives in human care.**

DOLORES REED/NZP

Chance and Change

Steve Monfort, who heads the Smithsonian Conservation Biology Institute, has worked assiduously for 20 years to preserve the scimitar-horned oryx. Things began with a dare at a conservation meeting, which led to the creation of the Sahara Conservation Fund. Then came a 2004 visit to the United Arab Emirates (UAE).

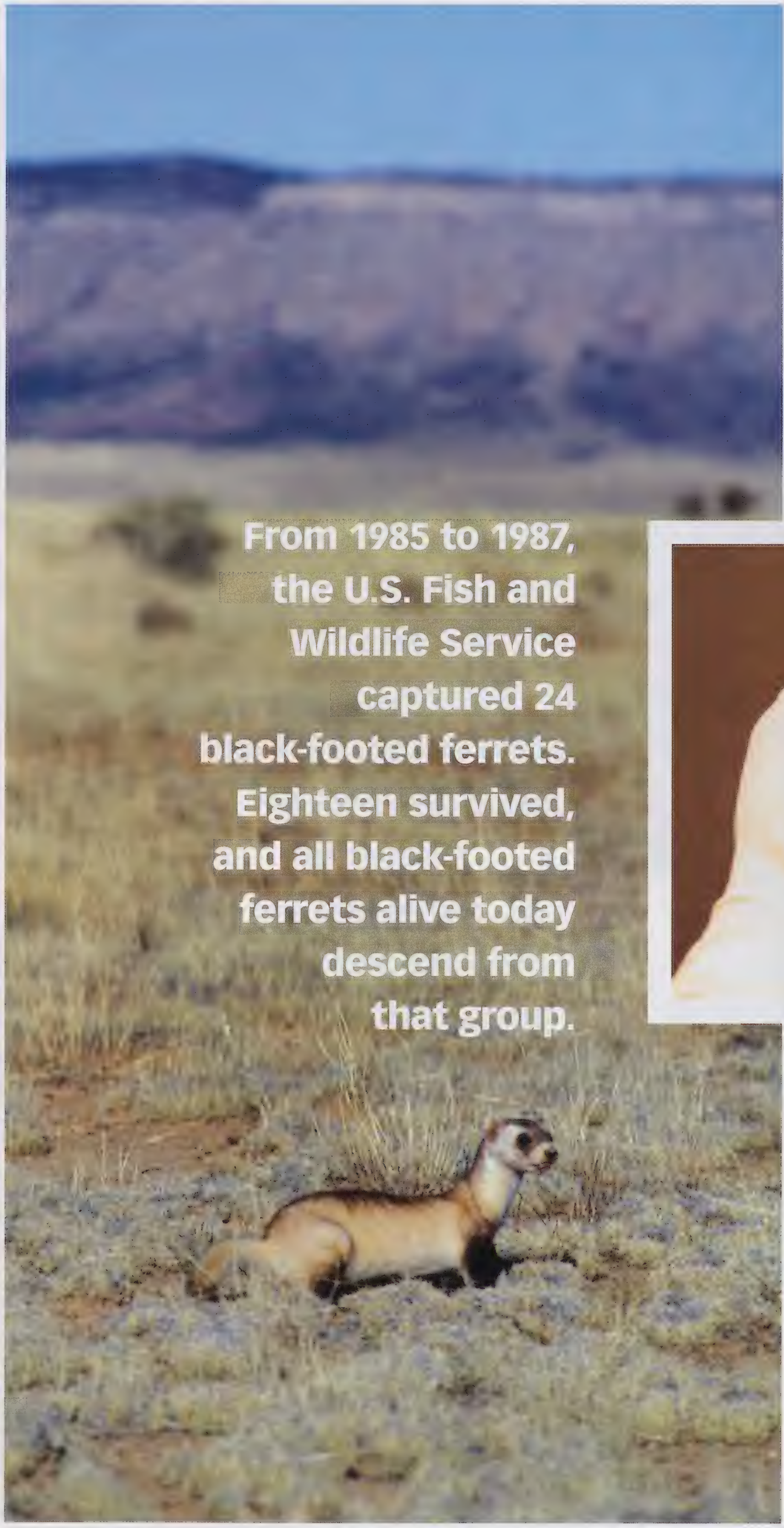
In the UAE to assist with other conservation issues, Monfort and his fellow scientists were astonished to drive past a large herd of scimitar-horned oryx. "We had no idea they were there," Monfort recalls.

The herd belonged to Sheikh Zayed bin Sultan Al Nahyan, the founder of the UAE and a passionate conservationist. He played a key role in introducing a similar animal, the Arabian oryx, back into the wild. Sheikh Zayed died in 2004.

Sheikh Zayed's devotion to conservation helped inspire collaboration among SCBI, the Sahara Conservation Fund, Environment Agency-Abu Dhabi, and officials from Chad. "We convinced them that it was a worthy legacy project to Sheikh Zayed's efforts," Montfort recalls.

Those conversations led to an ambitious goal: releasing 500 oryx into the wild over the next five years. The first release, involving 21 animals bred in human care, took place last summer, and there has already been a calf born in the wild. Fourteen more oryx were released in January, bringing the total to 36. More will be released in July. The hope is to release roughly 25 oryx every three months.

"I was there for the release of the first group," says Monfort. "I got to open up the door, and as they were running out of the crate, tears were running down my face. After 18 years, we were able to reach this significant milestone. It's an amazing feeling to turn something around that seemed hopeless and make it hopeful. It's the highlight of my career."



From 1985 to 1987, the U.S. Fish and Wildlife Service captured 24 black-footed ferrets. Eighteen survived, and all black-footed ferrets alive today descend from that group.

THIS PAGE: **One of the black-footed ferrets released into the wild in Arizona.**

CENTER: **SCBI has bred nearly 800 BFF kits, and 300 of those have been reintroduced into their native habitat.**

JESSIE COHEN/NZP

Wild Education

Reaching that moving moment took meticulous planning. The paramount challenge was ensuring that captive-bred oryx could survive in the wild. Toward that end, releases happen in two stages. After arriving in Chad, each group of oryx settles into a 50-acre enclosure. There they begin adjusting to a new menu.

"Oryx are not carnivores, so we don't have to teach them to kill," says SCBI researcher Jared Stabach. But the animals do need to adjust to foraging on their own. "We give them time so their guts can adjust to the native grasses," Stabach says. Meanwhile, keepers gradually reduce the amount of grain they feed the oryx.

VICTORIA LAKE/NZP

Through this transition, keepers record daily "body score measurements" on a scale of one (too thin) to nine (too fat). Five is perfect. So far, all the oryx who've gone through the process have adjusted well to natural foraging.

Another key step on the way to the wild is fitting each scimitar-horned oryx with a tracking collar. "I've been the one responsible for all the collars, which makes me a little nervous," Stabach says with a gentle laugh.

The collars are programmed to transmit data to Front Royal twice a day. Monfort, Stabach, and other SCBI scientists can look at their computer monitors—or their phones—and get updates. "I know exactly where every oryx is," says Monfort. Each animal's collar will drop off and be recovered after about two years. But the collars on more recently released animals will keep the data flowing.

GPS readings from the oryx are automatically repackaged into an email and sent to the ground crew in Chad. The information helps them physically track the animals in order to monitor their health and adaptation to the wild. Researchers believe the close monitoring will discourage poaching. "We are not a police force, but we can be a persistent presence," Stabach says. "All the feedback we're getting is that people are really excited to have this animal back on their landscape."

From Sheikh to Shep

Like scimitar-horned oryx, black-footed ferrets (BFFs) owe their survival to a chance encounter. A Wyoming farm dog named Shep plucked the ferrets from the brink of extinction in 1981, when he brought an odd-looking carcass to his owner. From there it went to a taxidermist, who recognized it for what it was and notified federal authorities.

The dead ferret turned out to have been part of a small wild population. That was thrilling news for a species long believed to be extinct. From 1985 to 1987, the U.S. Fish and Wildlife Service captured 24 BFFs. Eighteen survived, and all BFFs alive today descend from that population. More than 800 ferret kits have been born at SCBI, nearly 300 of which have been reintroduced into their native habitat. Reintroducing BFFs into the wild began in 1991.

"If we hadn't found those 18 animals, there would be no more BFFs on the planet," says Kenton Kerns, assistant curator at the Small Mammal House. "We were lucky. Really, really, really lucky." Kerns works with Dusty and Digger, two male BFFs sent to the Zoo from the Front Royal breeding program. "The goal is to get every animal reintroduced, but when they see an animal that can't go back into the wild—maybe it's too used to humans—they give it to a zoo. We use them to tell the black-footed ferret story."

YOUR SUPPORT IN ACTION

ENVIRONMENT AGENCY- ABU DHABI

By *Rounding Up for Conservation* in Zoo shops and restaurants, our members and other visitors funded a FONZ Conservation Grant to SCBI scientist Jared Stabach, who plays a key role in reintroducing scimitar-horned oryx into the wild. Stabach used the funds to study conditions in the animals' new home and to create a 3-D digital panorama of the site. People around the world can explore the landscape virtually at fonz.org/panorama.

***Many thanks and please keep* Rounding Up for Conservation!**

Przewalski's horse is the
ONLY TRULY WILD HORSE ON THE PLANET.

JESSIE COHEN/NZP

Dusty and Digger are curious and enjoy interacting with their environment and their keepers. Although solitary and nocturnal, they rouse themselves from their naps when keepers and food arrive. Each BFF lives in his own burrow, which visitors can peer into.

Predator and Prey

Black-footed ferrets are voracious predators. In the wild, an adult can eat 100 prairie dogs a year. BFFs also depend on prairie dogs for their habitat, squatting in the rodents' elaborate underground villages. In fact, the biggest threat to the ferrets' survival is the continuing plunge in prairie dog populations.

Conservationists hail prairie dogs as a keystone species for the Great Plains, but they haven't always been seen that way. For decades, farmers and ranchers, with government assistance, destroyed huge swaths of prairie dog colonies, which they viewed as destructive to their fields.

Slowly, though, the reintroduction of the charismatic BFF has shifted attitudes. "Reintroduction of a flagship species like the BFF," says Paul Marinari, senior curator at SCBI, "benefits the entire ecosystem." And in the case of the BFF, it "can have a snowball effect," with private owners setting aside land and assisting in the reintroduction of the species.

As with scimitar-horned oryx, training ferrets born in human care to survive in the wild is a challenge. "For any reintroduction program," says Marinari, "you want to mimic what they'll face in the wild." For BFFs that means both catching prey and not becoming prey themselves.

Early on, researchers performed "predator avoidance" studies at both Front Royal and the U.S. Fish and Wildlife Service's National Black-footed Ferret Conservation Center in Colorado. "We used a taxidermied owl and a robo-badger," explains Marinari, "thinking that exposing them to pseudo-predators would improve their reaction times for reentering their burrows. Turned out not to work. There was no improvement."

Meticulous trial and error led researchers down a different path. Data from radio collars on BFFs released into the wild helped the reintroduction team (involving researchers from many institutions) determine the efficacy of various training regimens.

Ultimately, "we gave the animals access to a natural burrow system and then added their live prey—prairie dogs," says Marinari. Since 1996, nearly all BFFs have gone through "boot camp" in Colorado prior to reintroduction.

Earth's One Wild Horse

On grasslands a world away from Colorado, another species saved from extinction roams free again. It is Przewalski's (shuh VAHL skeez) horse, a zebra-size equid named for Russian explorer and geographer Nikolay Przewalski—who, in the 1800s, was the first European to describe them.

More simply, Zoo staff tend to refer to them as P-horses. In their native Mongolia, P-horses are known as *takhi*—meaning "spirit."

Przewalski's horse is the only truly wild horse on the planet. Other "wild" horses, genetically different from P-horses, descend from domesticated animals gone feral.

Like scimitar-horned oryx and black-footed ferrets, P-horses have the dismal distinction of having been considered extinct in the wild. All of the 1,900 alive today descend from 14 founders caught in the wild between 1910 and 1960.

The Zoo has been a major player in reversing P-horses' fortunes. SCBI's 12 horses are the largest North American population, and Smithsonian scientists collaborate closely with their colleagues at reintroduction centers in Mongolia and China.

"Our goal is to figure out how to sustain a wild population of P-horses without negatively impacting people's lives," says Melissa Songer, a conservation biologist at SCBI. That includes both high-tech GPS collars and low-tech outreach to local communities in the horses' range.

Some 500 P-horses now roam wild. Some are fully independent; others are monitored during the harsh winters.

The Long View

As oryx, ferrets, and wild horses reclaim their native habitats, researchers around the globe strive to ensure a genetic diversity that will allow these, and other, species to survive. "We have to do the best we can to allow these species to persist," says Marinari. "Hopefully future generations of humans can figure things out better."

There's no quick fix, adds Monfort. "We forget these kinds of problems don't get solved in one lifetime but will go on for generations." And so will Smithsonian scientists' passionate, innovative work of saving species. SZ

—VALERIE MAY *is a regular contributor to* Smithsonian Zoogoer.

A P-horse at SCBI, which currently houses 12 of the species.

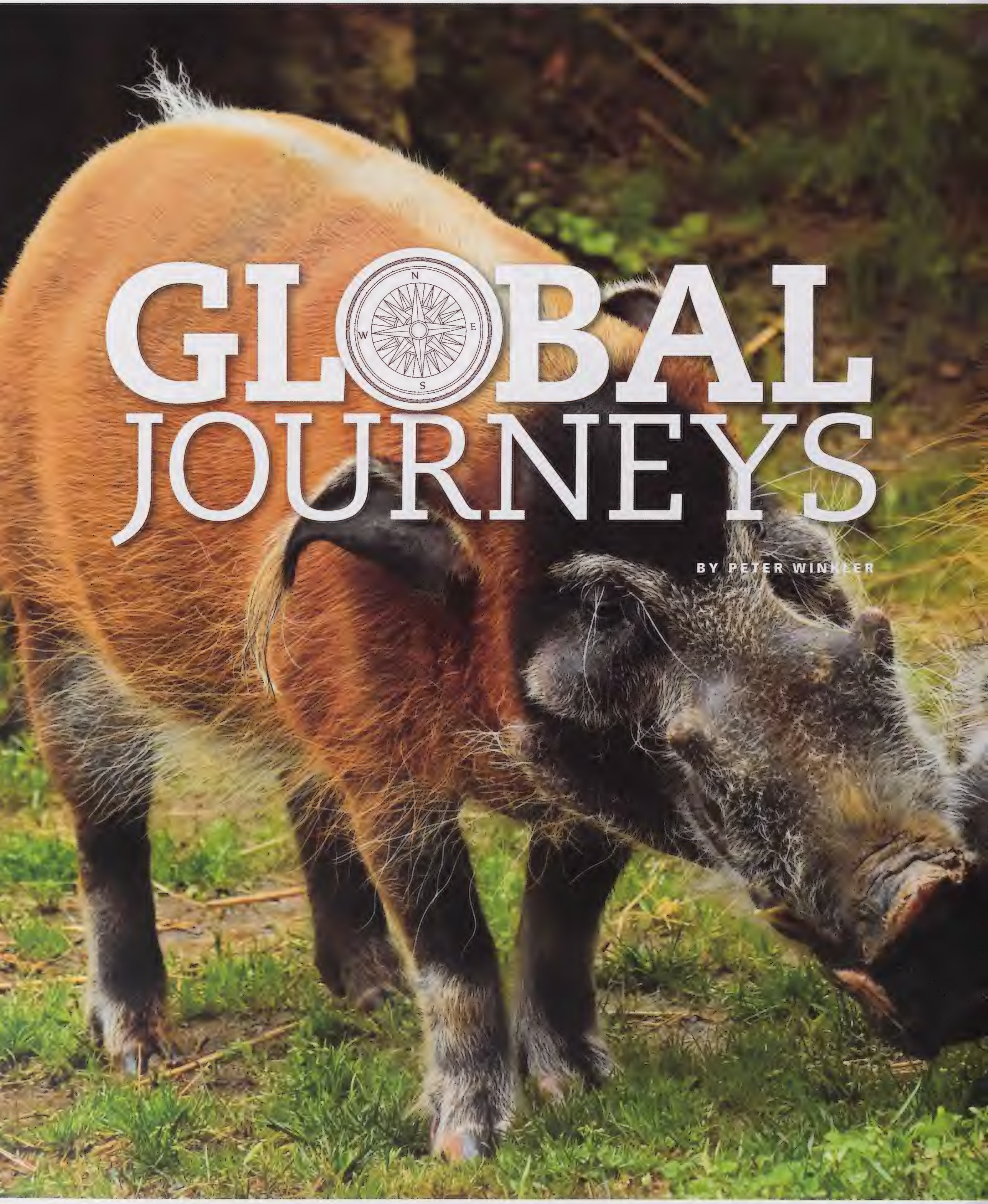
Come See the Survivors

You can encounter all three of these back-from-the-brink survivors during your next visit to the Zoo.

Cheetah Conservation Station
Long, curving horns slice the air as these elegant animals graze.
(Note: Construction may block access on some days this spring.)

Small Mammal House
A creatively designed exhibit invites visitors to peek into the burrows of black-footed ferrets.

P-horse Paddock
Earth's only truly wild horses dwell on Olmsted Walk, next to the Small Mammal House.



GLOBAL JOURNEYS

BY PETER WINKLER

CRAIG SALVAS/FONZ PHOTO CLUB

A visit to the Zoo is an opportunity to explore wildlife around the world. This portfolio takes you on three of many possible adventures.

You won't need a passport or a plane. No heavy bags or exotic vaccines. No jet lag either. And you can drink the water.

Yet you can dash from an Amazonian rainforest to an African savanna, from the Pacific Northwest to Southeast Asia—all without leaving the park.

Drawing on contributions from FONZ Photo Club members and the Zoo's image collection, these stunning pictures take you to the Americas, to Africa, and to Asia.

Get ready for takeoff!

JOURNEY 1

ICONS OF THE AMERICAS

It all began with bison. The near extinction of North America's largest mammal spurred the creation of the Zoo in 1889. You can see the shaggy behemoths on Olmsted Walk and meet other iconic animals on American Trail. Panamanian golden frogs—emblems of the Zoo-led battle against the chytrid fungus that threatens to erase whole species of amphibians—dazzle visitors to Amazonia and the Reptile Discovery Center.

CONNOR MALLON/NZP

Green Anaconda

CONSERVATION STATUS: *Not Evaluated*

WHERE TO SEE: *Reptile Discovery Center*

Heaviest of all snakes, green anacondas can weigh hundreds of pounds. Females tend to outweigh males.

Golden Lion Tamarin

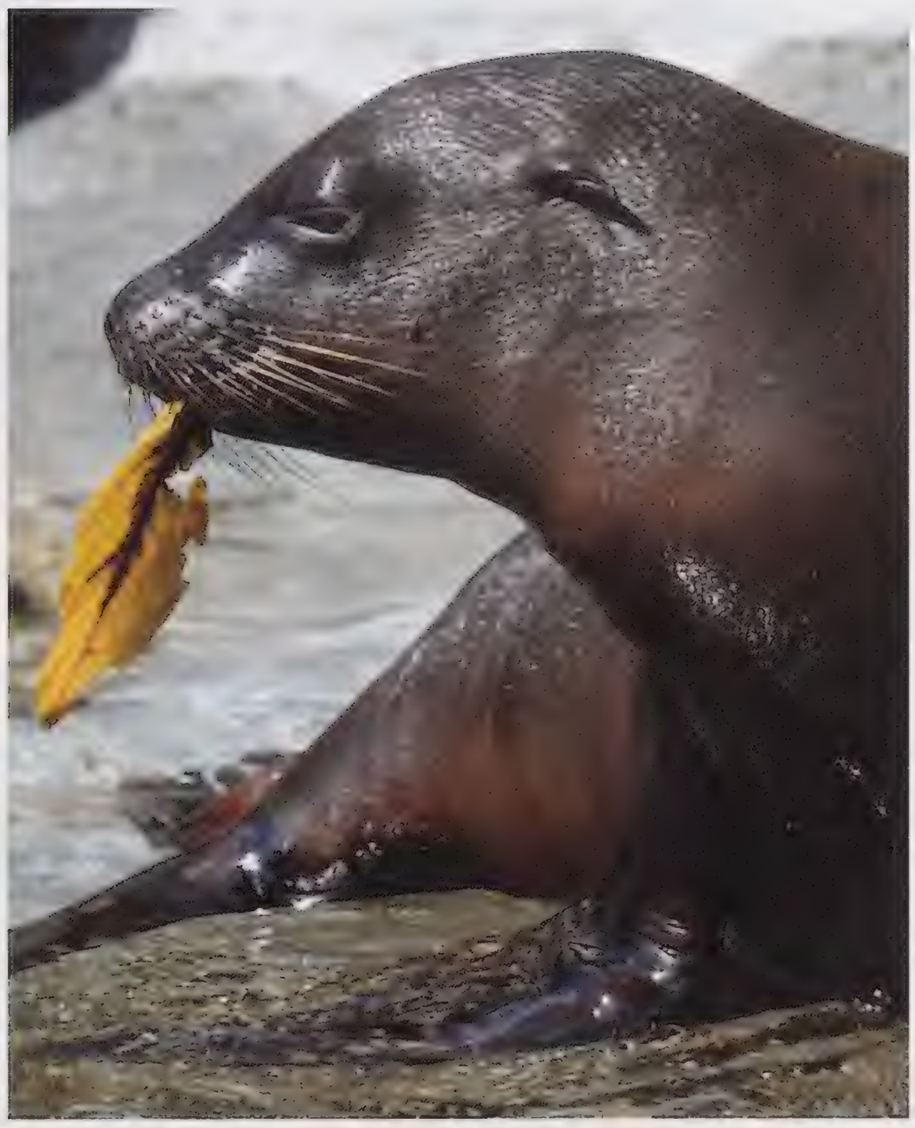
CONSERVATION STATUS: *Endangered*

WHERE TO SEE: *Small Mammal House*

These Brazilian primates nearly vanished, with only 200 surviving a few decades ago. Today, more than 3,000 thrive in the wild. A third of them descend from ancestors born in zoos.

JESSIE COHEN/NZP

BARBARA STATAS/NZP



LINDA GLISSON/FONZ PHOTO CLUB

American Bison

CONSERVATION STATUS: *Near Threatened*

WHERE TO SEE: *Olmsted Walk*

Bison were the mainstay of Plains Indians. They used nearly every ounce of the animal, which could exceed a ton.

Panamanian Golden Frog

CONSERVATION STATUS: *Critically Endangered*

WHERE TO SEE: *Amazonia, Reptile Discovery Center*

Panama's equivalent of the bald eagle, this vibrant amphibian gets its own holiday every August 14th.

California Sea Lion

CONSERVATION STATUS: *Least Concern*

WHERE TO SEE: *American Trail*

Awkward and lumbering on land, sea lions glide effortlessly through water, reaching speeds up to 30 miles an hour.

BRIAN GRATWICKE/NZP

GLOBAL JOURNEYS

JOURNEY 2

OVERLOOKED AFRICANS

Safari stars claim the lion's—and elephant's and rhino's—share of attention, but Africa is also home to a host of lesser known but no less intriguing creatures, some of which await you at the Cheetah Conservation Station and Small Mammal House.

AMY ENCHELMEYER/NZP

CAROLYN FIGUEIREDO/FONZ PHOTO CLUB

CONNOR MALLON/NZP

Abyssinian Ground Hornbill

CONSERVATION STATUS:
Least Concern

WHERE TO SEE:
Cheetah Conservation Station

Roughly the size of wild turkeys, these savanna dwellers prefer to walk or run. Yet they do fly at times, usually to snare prey or defend territory.

Fennec Fox

CONSERVATION STATUS:
Least Concern

WHERE TO SEE:
Small Mammal House

Smallest of all canids, fennec foxes weigh only a few pounds. Their supersize ears help the desert animals shed body heat and pinpoint prey.

Red River Hog

CONSERVATION STATUS:
Least Concern

WHERE TO SEE:
Cheetah Conservation Station

Native to rainforests and grasslands, these hugely adaptable hogs are the opposite of picky eaters. So they cope well with growing human populations, often feasting on crops.

GLOBAL JOURNEYS

JOURNEY 3

ASIANS AT RISK

A quiet cataclysm menaces wildlife throughout Asia. Asian elephants, for instance, are even more endangered than their African cousins. The Zoo showcases a variety of Asian animals facing the threat of extinction and explains our scientists' battles to save them.

MEHGAN MURPHY/NZP

BARBARA STATAS/FONZ PHOTO CLUB

Komodo Dragon

CONSERVATION STATUS: *Vulnerable*

WHERE TO SEE: *Reptile Discovery Center*

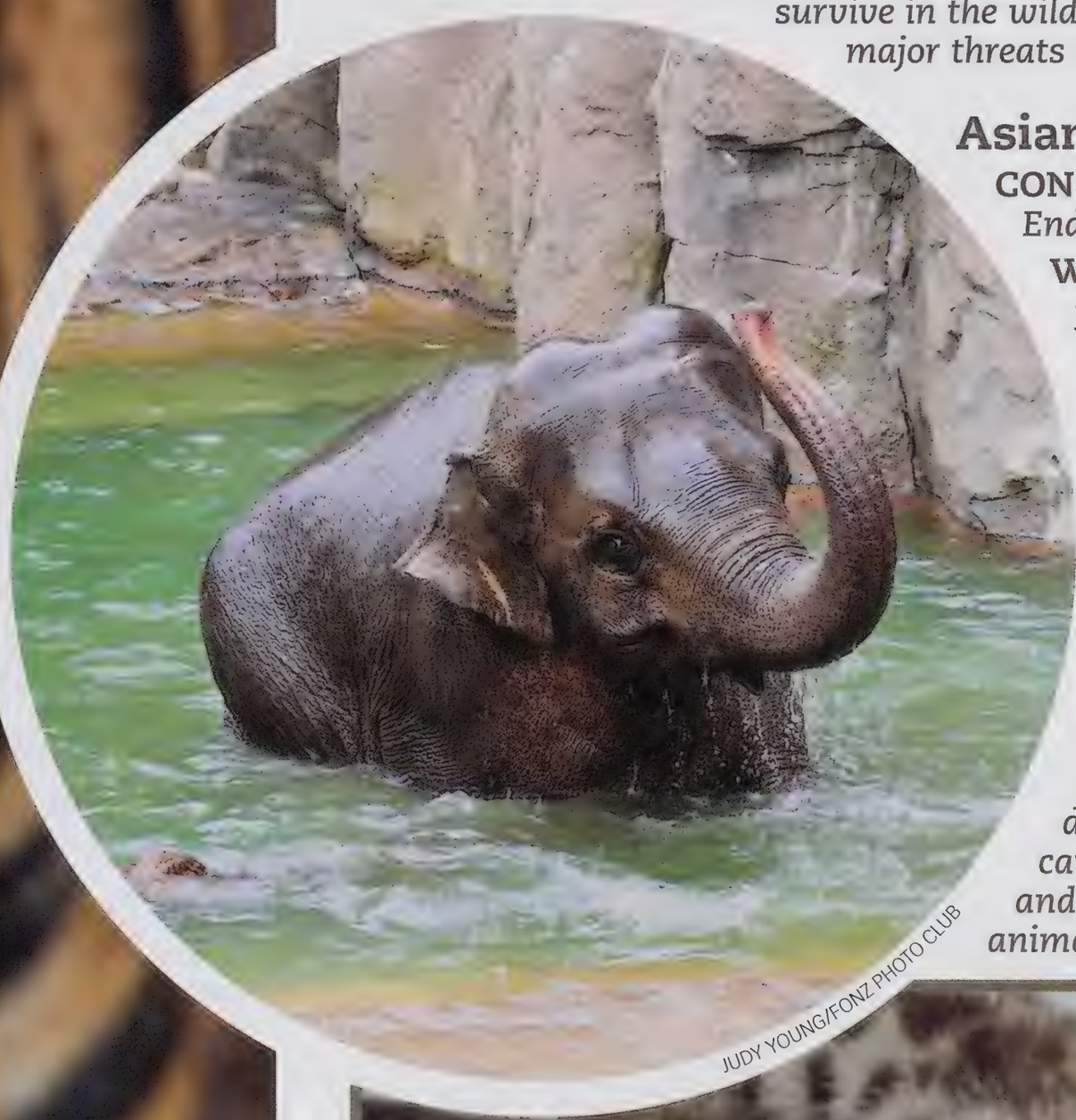
Earth's largest lizards, Komodo dragons can grow ten feet long and weigh nearly 400 pounds. Yet they can sprint at 10-plus miles an hour to chase prey, which their lethal saliva helps kill.

Sumatran Tiger

CONSERVATION STATUS: *Critically Endangered*

WHERE TO SEE: *Great Cats Exhibit*

Fewer than 400 Sumatran tigers, native to Indonesia, survive in the wild. Habitat loss and poaching are the major threats to these striped marvels.



JUDY YOUNG/FONZ PHOTO CLUB

Asian Elephant

CONSERVATION STATUS: *Endangered*

WHERE TO SEE: *Elephant Trails*

Fragmentation and loss of habitat imperil these gray giants. So does human-elephant conflict as the two species live in ever closer quarters.

Clouded Leopard

CONSERVATION STATUS: *Vulnerable*

WHERE TO SEE: *Asia Trail*

Adept climbers, clouded leopards live primarily in rainforests, the destruction of which has shrunk cat populations. Poaching for skins and meat also threatens these elusive animals.

MEHGAN MURPHY/NZP

BAO BAO'S BIG

Like Tai Shan before her, Bao Bao has made her big move—from the United States to China. Bittersweet for her adoring public, it's an exciting step for panda conservation.

ADVENTURE

BY BRITTANY STEFF

05-20-2015

CONNOR MALLON/NZP

The hardest part of raising children is letting them go.

Whether the kid's headed off to college, to travel and adventure, or to a job in another city, saying farewell to a bubbling, energetic young adult—whom you vividly remember as a soft, sweet, snuffling baby—is one of the toughest things parents do. Yet we all know, even if we're slow to accept, that children are meant to grow up, find their wings, and leave their parents.

That's as true for giant pandas as it is for humans. Except that instead of two parents dreading an empty nest, there are millions of people around the world who miss seeing Bao Bao at the Zoo and on the webcam. Not to mention the animal care teams who worked with her since she was a tiny pink cub.

Watching Bao Bao go off on her next big adventure was heart-wrenching, but ultimately a proud and rewarding process.

Born for This

Bao Bao was born in a flurry of excitement and exhilaration on August 23, 2013. Breathless webcam viewers, both the public and the animal care team, watched as Mei Xiang's water broke and she gave birth to a loud, feisty, robustly healthy, female cub.

Bao Bao was Mei Xiang's first surviving cub since Tai Shan was born in 2005. When she was 100 days old, the first ladies of China and the United States named her Bao Bao, which means "precious treasure." A smitten public watched her grow up and celebrated her milestones: first medical exam, exploring the yard, public debut, climbing trees, and learning to be a bear.

Typically solitary animals, panda fathers and older siblings are not involved in a cub's life. In the wild, female cubs begin to separate from their mothers when they are about 18 months old, heading out to establish their own territories.

Bao Bao, always an independent bear, was ready to separate from her mother in March 2015. Mei Xiang had stopped producing milk, and Bao Bao was no longer nursing. She was also spending increasing amounts of time apart from her mother—in trees or in distant parts of the David M. Rubenstein Family Giant Panda Habitat.

At three and a half years old, reports assistant panda curator Laurie Thompson,

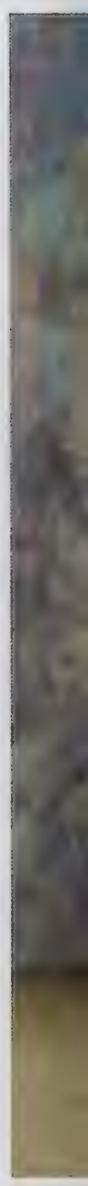
BAO BAO'S BIG ADVENTURE

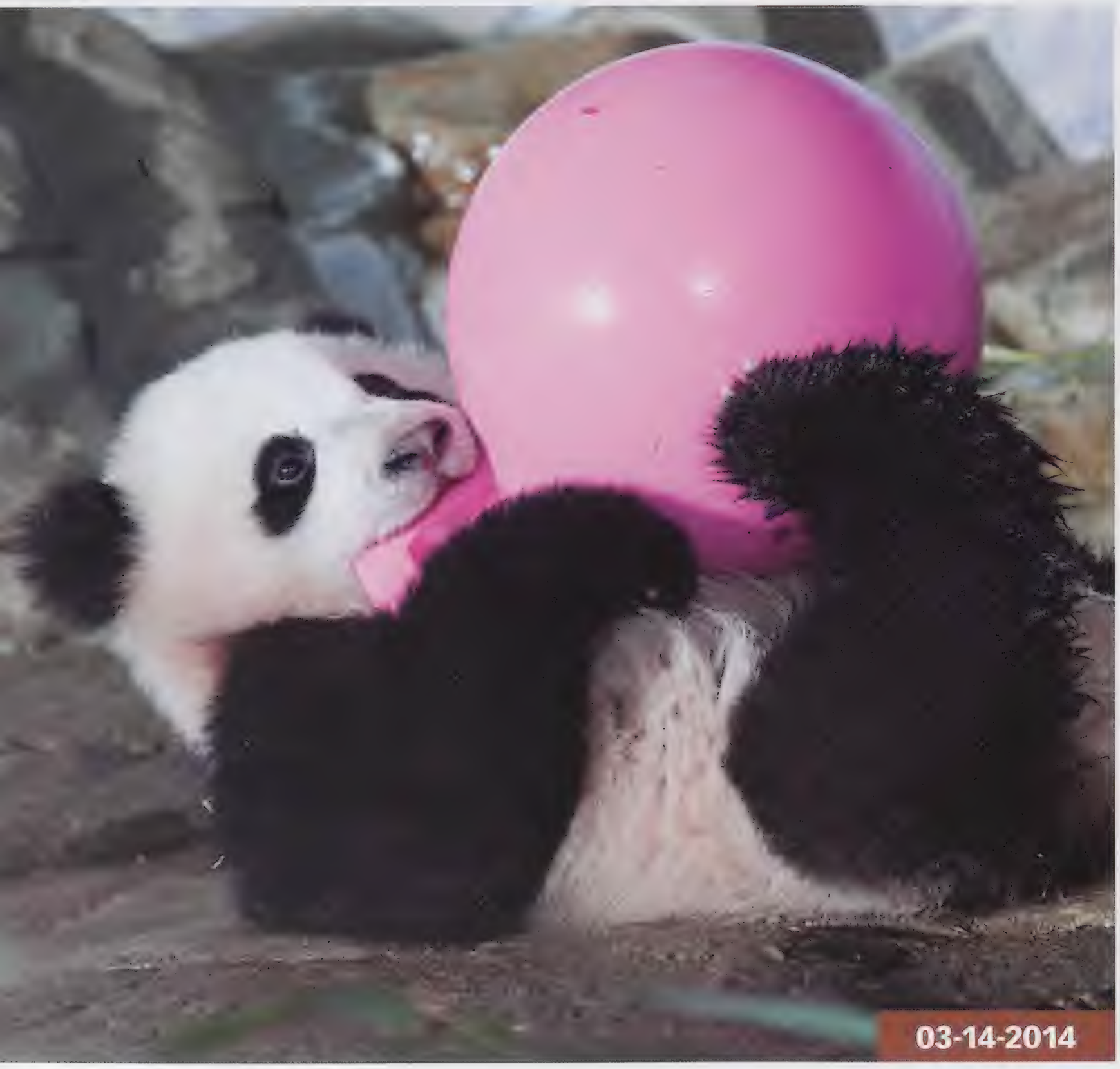
08-25-2013

COURTNEY JANNEY/NZP

12-06-2013

ABBY WOOD/NZP

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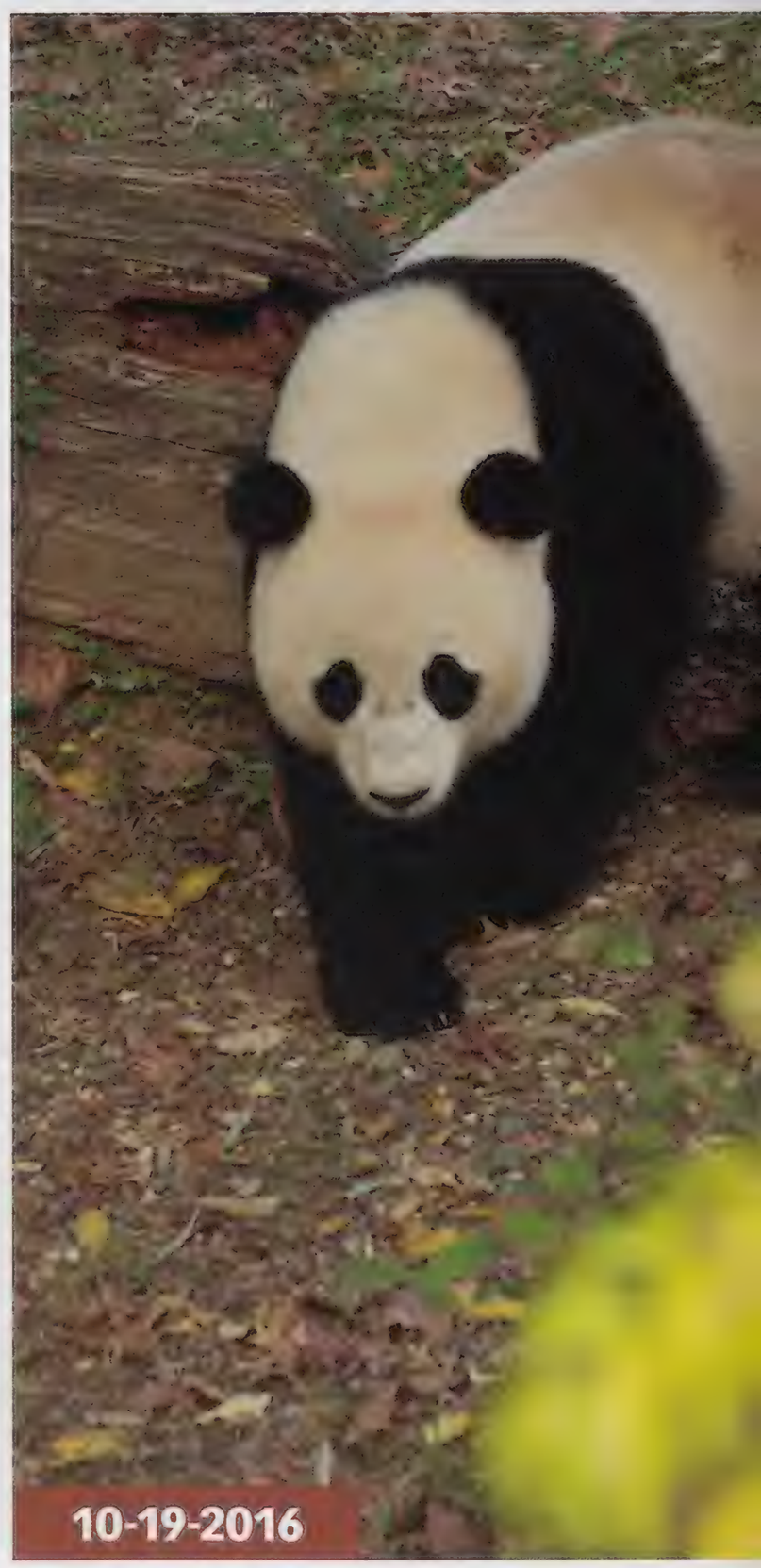
DON HURLBERT/NMNH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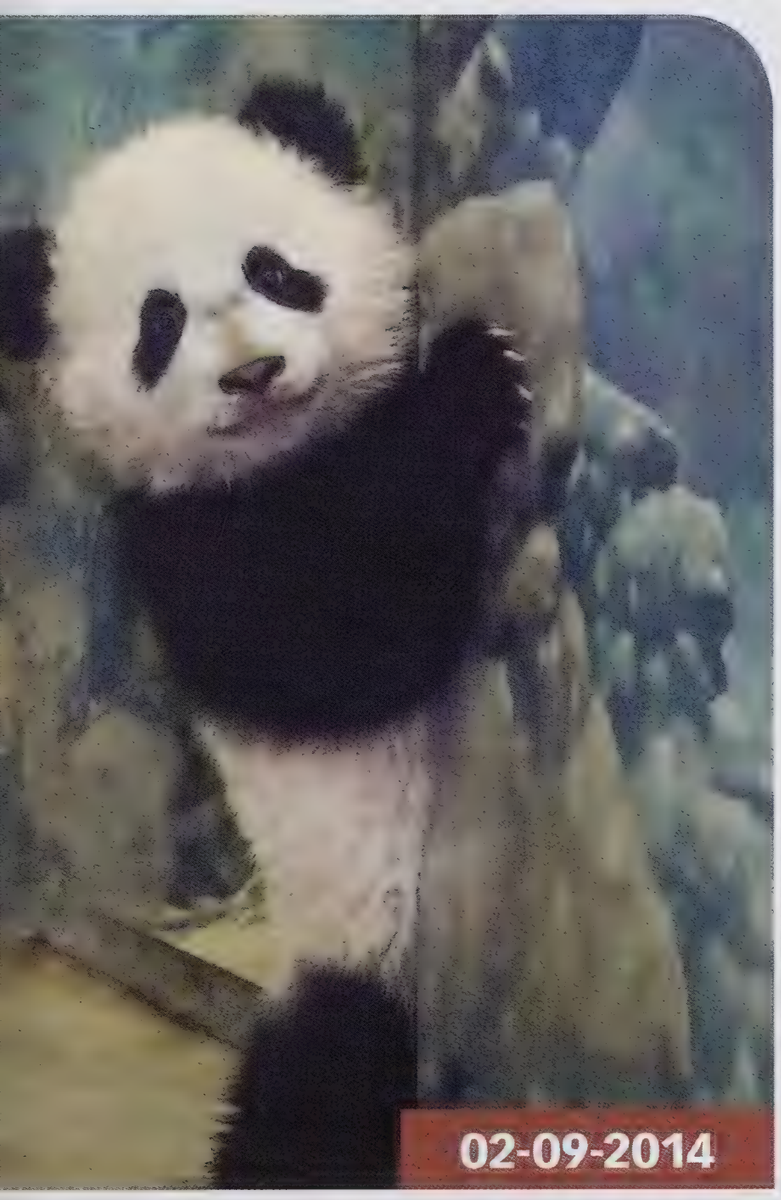
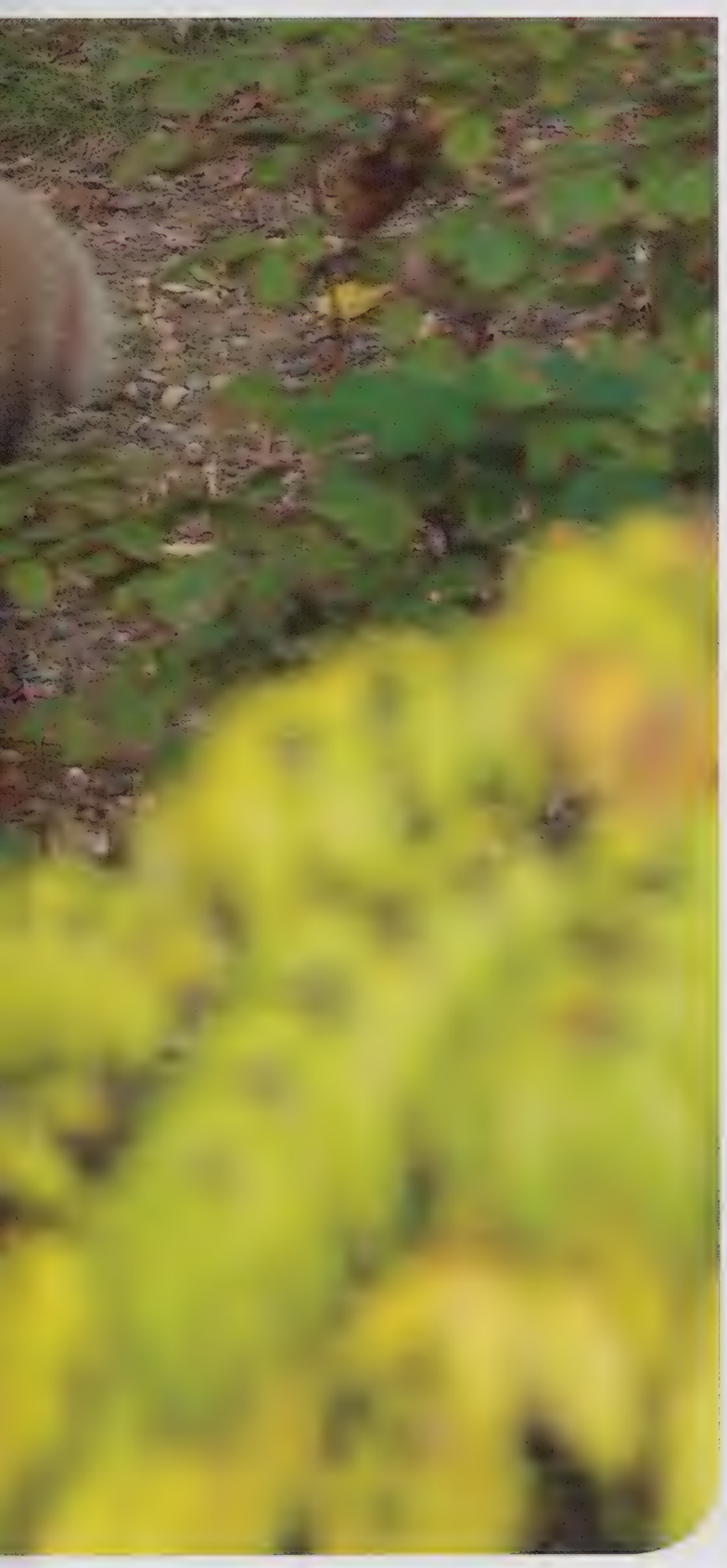


BARBARA STATAS/FONZ PHOTO CLUB



CONNOR MALLON/NZP

Bao Bao's "basically at the age where she's not quite fully grown, but she's getting close. She's at that young adult stage where we've given her all the tools we have to give her."

All of Bao Bao's life, right from the moment of her conception, was geared toward her eventual journey to one of China's giant panda breeding and conservation centers. Bao Bao was trained to cooperate with medical procedures including blood draws and even ultrasounds that will help her when it comes time for her to enter the breeding population and have cubs of her own.

Traveling in Style

How is a panda like a president? She flies in style, on a private jet, and accompanied by her own medical staff in case of emergencies. And like those of a president, Bao Bao's travels required intense advance work. The Zoo's animal care team strove to make the transition as comfortable as possible.

That started with timing. Thanks to the chilly climate of their native mountains, pandas are more able to tolerate cold than heat, so zoos time pandas' trips to China to coincide with cool weather in both countries.

Bao Bao spent the flight in a specially constructed crate almost identical to the one Tai Shan occupied on his way to China in 2010. The animal care team introduced her to the crate in the weeks before her trip, placing it in the chute system between her den and the outdoor yards.

By walking through it every day, Bao Bao learned that the crate was a safe and unthreatening place. As she grew comfortable with it, keepers began shutting the door for initially short but then longer periods, plying her with treats and praise to ensure that the experience was a positive one.

Like Tai Shan before her, Bao Bao flew on a special FedEx 777 on a direct flight from Washington to China. A veterinarian and Marty Dearie, a keeper she's known her entire life, flew with her. So did a crew with plenty of panda-transport experience. The same group flew Mei Xiang and Tian Tian from China to D.C. in 2000 and brought Tai Shan to China in 2010.

"My job was to keep an eye on her," Dearie explains, "Anything from making sure she had food if she wanted it, and water, to helping keep her calm by being present and, if she got nervous, running her through trained behaviors and providing a sense of familiarity. Basically, I did the same things I would be doing as a regular keeper, just on an airplane."

All the training, preparation, and carefully thought out details kept Bao Bao calm and comfortable on her flight, just as it had for Tai Shan. Nicole MacCorkle, the keeper who flew with Tai Shan, says that his flight was uneventful.

"It was a quick flight. If you were to fly to China normally, it would be a 30-hour process. Our direct flight only lasted about 14 hours," MacCorkle says. "For Tai Shan, it seemed like a normal day. He ate and slept just as he would have at the Zoo. Except that he was in an airplane going over the North Pole, he was just doing what he does."

A New Home, A New Hope

Once in China, Bao Bao, still in her trusty crate, traveled by truck to Dujiangyan Panda Base, dedicated to the preservation

YOU'RE A PANDA PARTNER TOO!

"Pandas at the Zoo have a direct tie to panda conservation in the wild," says Brandie Smith, associate director for animal care sciences at the Zoo. "When people come to the Zoo and they buy hot dogs and T-shirts, when they support the Zoo, that money has a direct line to conservation in China. We're saving pandas. Not just staff at the Zoo and SCBI. But the people who come to the Zoo and see pandas have a direct tie to the wild."

BAO BAO'S BIG ADVENTURE

WHY DID SHE HAVE TO GO?

When strangers hear "I work at the National Zoo," one question often bursts forth: "Why do the panda cubs have to go to China?" Washingtonians' possessiveness toward the Zoo's beloved black-and-white bears is so famous that *Madam Secretary* worked it into a plotline last fall. Tensions with the U.S. prompted Beijing to threaten reclaiming the Zoo's giant pandas. The Zoo's communications team helped the TV producers get the details right.

The real story isn't quite that dramatic. Giant pandas live in just a small area of China, which permits the bears to leave the country only through breeding agreements with host zoos. Panda pacts are reviewed and renewed every five or ten years.

The contract between the United States and China stipulates, among other things, that panda-holding zoos have to materially contribute to giant panda conservation in China and that all panda cubs born go to China by the time they are four. Giant pandas reach sexual maturity between the ages of five and six, so the four-year-old deadline ensures that they have plenty of time to adjust to life at the Chinese conservation and breeding centers before they are ready to mate.

DON HURLBERT/NMNH

of giant pandas. Dearie stayed with her a few days to help her adjust and settle in. While Bao Bao doesn't understand Chinese, much of her training was conducted using hand signals, which Dearie made sure to show to her new Chinese keepers. Many of her keepers also know some English, which will help her adjust.

"The most important thing to remember," MacCorkle says, "is that we love these pandas, but they're loved just as much in China. Their keepers there are just as dedicated as we are, and they're so excited about Bao Bao."

Dave Wildt, head of the Center for Species Survival at the Smithsonian Conservation Biology Institute and the person responsible for coordinating zoos' research in China, concurs: "Our animals don't go back to some sort of static warehouse for animals or tiny, cramped enclosures. These are state-of-the-art facilities with truly outstanding animal care."

About 1,800 giant pandas live in the wild in China. Nearly 500 live in zoos and conservation centers in China. A bare dozen, many of them related to each other, live in zoos in the United States—in Atlanta, Memphis, and San Diego along with Washington.

Those numbers underscore the importance of Bao Bao's move to China, where she has the best possible chance of finding a mate that is both socially and genetically compatible. That's literally vital, given that many conservation-breeding programs struggle against inbreeding.

Fortunately, giant pandas in conservation centers in China have levels of genetic diversity similar to those of wild pandas. That's good news for continuing to build a resilient, robust population of giant pandas. That population will be all the stronger with Bao Bao's DNA added to the gene pool.

A Black-and-White Legacy

Giant pandas have had other good news lately too: They were recently "downgraded" from endangered to vulnerable. While the species is still threatened by habitat loss, poaching, and a low population, giant pandas are in much better shape than they were 15 years ago.

With a thriving breeding population, the Chinese have successfully begun to reintroduce pandas back into their native habitat. Bao Bao's cubs or grandcubs could be wild pandas.

A hemisphere away from the Zoo, the Smithsonian continues to play a vital role in giant panda conservation. Partnerships between SCBI and Chinese scientists helped improve animal care for giant pandas and boost reproduction and survival rates at the breeding centers. Smithsonian scientists are now helping refine reintroduction programs and studying panda health—including pathology and immunology—in greater detail.

They're also striving, hand in hand with their Chinese colleagues, to make sure that giant pandas have a wild to go back to. Melissa Songer, a conservation biologist at SCBI, is working to restore panda habitat, create new panda preserves, and improve the quality of the reserves already in existence. Bill McShea, an SCBI ecologist, aims to create effective corridors between reserves, to make sure pandas' genetic diversity stays as robust as possible.

Add all this up and the result, as SCBI scientists emphasize, is a species where zoos are having a concrete and quantifiably positive impact—both in human care and in the wild.

The Best for Bao Bao

The panda house may feel a bit less full for a while with Bao Bao gone. And everyone—from Zoo staff and FONZ members to the public and webcam viewers—will miss her terribly. Yet Bao Bao's trip to China was what's best for her, and what's best for giant pandas.

Says keeper Marty Dearie, "From a personal standpoint, we're all going to miss her. We've all formed a bond with this animal and we'll be sad when she's gone. But we're also so proud of her, and so proud that she, and we, are part of a global effort to save this species." SZ

—*Veteran contributor* BRITTANY STEFF *is rearing two small, pink, adorable cubs of her own.*

A gift for you. Sure, getting a present feels good—but saving an animal feels way better. Your birthday, graduation, or wedding is the perfect chance to create a fundraising page and ask friends and family to contribute to the species-saving work of our National Zoo and SCBI scientists. Every dollar helps save the endangered species that call this planet home. With Conservation Nation, you've got celebrations wrapped up!

CONSERVATION NATION ▪ **FONZ.ORG/GIVE** ▪ START A FUNDRAISER

BEAST BITS

Nice Save!

The Zoo has two bald eagles—Tioga (a male) and Annie—and both were rescued from the wild. Tioga broke his shoulder and couldn't fly. Annie was injured and found in a marsh in Anne Arundel County. (That's where her name comes from.) Most eagles are fantastic fliers. They have long, wide wings that let them soar on wind currents and save energy so they can stay in the air longer. They have great vision—in full color, unlike most animals!—which lets them easily spot prey while they're aloft. And "bald" eagles aren't really bald. Their white feathered heads just look that way.

STEVE SNITEMAN/NZP

did you know?

Eagles look fierce but don't sound that way. They have a soft, even gentle, call that they rarely use. Ravens, though, are extremely vocal. Scientists have recorded more than 30 sounds from them, which all have different meanings.

STEVE SNITEMAN/NZP

Black Beauties

One of the ravens at the Zoo was also rescued from the wild. Chogan, a male, hurt his wing and can no longer fly. Iris, the female, can fly and was raised by hand to be an ambassador to teach people about these amazing birds. Ravens are super smart—they're one of the few animals that can use objects as tools to get food and help defend their territory. **You can see the Zoo's bald eagles and ravens at American Trail.**

CREATURE FEATURE

The brown pelican—native to both coasts of the Americas—is the high diver of the bird world, with a pouch under its bill that makes a splash.

Flying FISHER

BY SARAH BELLINGER

Most fish-eating birds—and most pelicans—skim the surface looking for their next meal, but not brown pelicans. They cruise 60 to 100 feet up. And when they see a tasty snack, they fold their wings and plunge straight down into the water like a spear. Dinner is served!

Built-In POCKETS Brown pelicans use the pouches under their beaks like built-in nets to scoop up fish and water—several gallons at a time. They let the water drain out and gulp the fish down while it's still alive and flopping around.

Are YOU Gonna Finish That? The pouches hold more fish than pelicans can eat at once, so adults will also feed their young from what they've caught. Sometimes other birds will hang around—even sitting on the pelican's beak!—and steal a fish or two for themselves.

Fine FEATHERS Brown pelicans have no natural enemies, but people used to hunt them for their feathers, which decorated women's hats and clothing. In 1903, President Theodore Roosevelt designated Florida's Pelican Island as the first national wildlife refuge in the U.S.

EGG-CELLENT Recovery Later, a pesticide called DDT hurt brown pelicans and other birds by making their eggshells too thin and fragile to protect the baby birds inside. In 1970, the species became endangered. DDT was soon banned by the government, but it took decades for brown pelicans to recover. Today, populations are stable.

Pelican PARENTS Females lay two to three eggs at a time, and parents take turns keeping the eggs warm until they hatch about 30 days later. Like most birds, parents feed the babies—called fledglings—by eating food and then throwing it up into their beaks. Yuck! After about 10 weeks, the fledglings take off on their own, barf-free.

GRAY Skies Today, brown pelicans' biggest threats come from abandoned fishing lines, other marine debris, and overhead wires. In Florida, at least 500 pelicans die each year by getting tangled in fishing gear.

Come Say HELLO! The Zoo has four brown pelicans on American Trail—Tinkerbell, Pappy, Scout, and Huey. All four have been rescued and rehabilitated after suffering injuries in the wild. They're living reminders that we need to protect wild animals by taking better care of the planet.

YOUR TURN

YUMMY!

Brown pelicans don't use lunch boxes or brown bags. They carry their lunch in their mouths. It doesn't stay there for long, though. For them, fish is too tasty to resist!

Draw a picture of a pelican that's about to eat its lunch, and list what's on the menu. Then draw a picture of yourself with your lunch. Include all the healthy, tasty treats you'll enjoy.

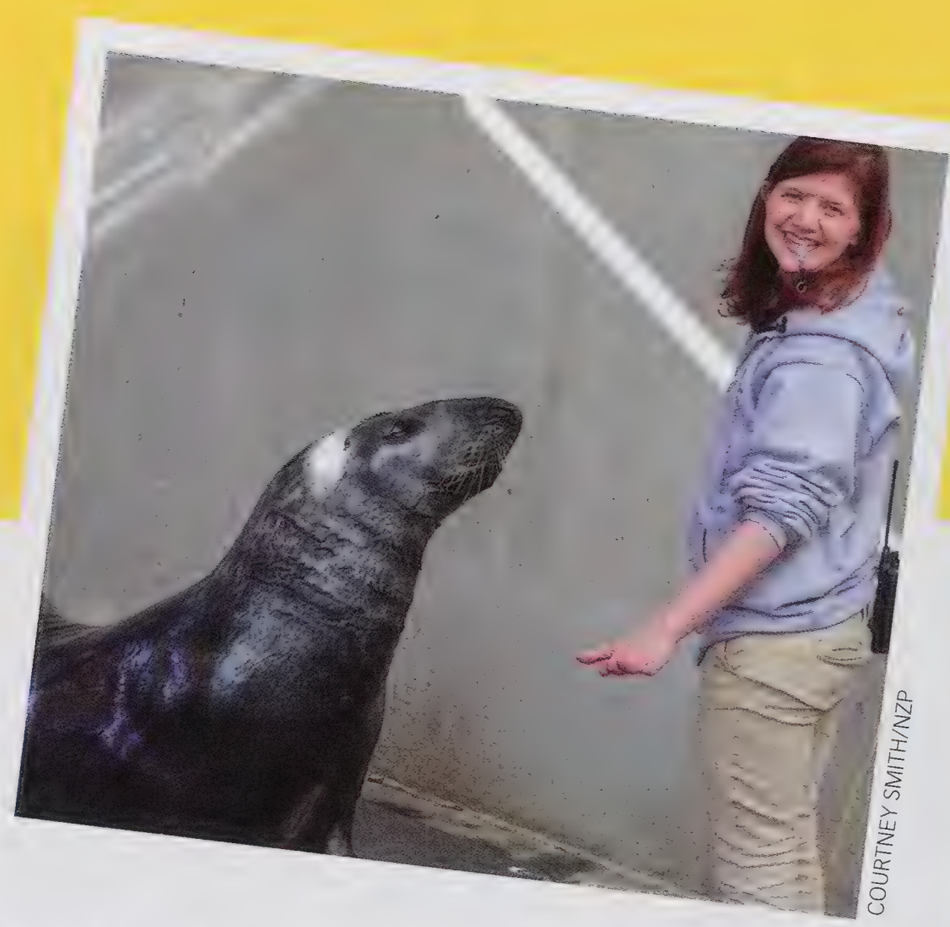
When you're done, ask your parents to snap a picture and email it to **zoogoer@si.edu.** We may share your artwork on social media or give it to the pelican keepers.

SMITHSONIAN Zoogoer kids CORNER

ZOO CREW

American Hero

The animals at American Trail are unusual in that they live in our national backyard. For keeper Diana Vogel, that's what makes the job special.



COURTNEY SMITH/NZP

When Diana Vogel, a keeper at American Trail, joined the Zoo in June 2016, she had a lot of experience working with animals, particularly marine mammals. But in her first week on the job, she got to watch a sea lion, Calli, give birth to a pup named Catalina. That was the first sea lion pup born at the Zoo in 32 years, and the first sea lion birth Vogel had ever seen. "I stayed overnight at the Zoo while the mom was in labor, and then two more nights monitoring the pup to make sure she was healthy," Vogel says. "It was a very cool way to start off my career here." Nearly a year later, both Catalina and Vogel are settling in nicely.

Best Behavior

Vogel studied animal behavior and training in college, and she had worked mostly with marine mammals at her earlier jobs, especially sea lions. But at American Trail, she works with varied animals, including the exhibit's wolves, otters, and even birds like bald eagles, ravens, brown pelicans, and wood ducks. "Whether it's big cats, bears, reptiles, or any other type of animal, all the basics of training are the same," she says. "It's just a question of learning how the individual animals behave, how to work around them, and what their needs are."

Stay Positive

The Zoo trains many of its animals to do certain behaviors so vets can make sure they're healthy, like leaning against an exhibit fence to have blood drawn. "Everything we do with the animals is based on positive reinforcement," she says. That means keepers reward the animals for getting the behavior right—usually with tasty food treats. And if the animals do something wrong, the keepers just ignore it. "We keep the sessions positive and engaging for the animals. They never get punished for getting something wrong."

X-Ray Vision

Currently, Vogel is working with the Zoo's male gray seal, Gunther, to sit for x-rays of his teeth. She gets him to hold a special dental plate in his mouth (just like people do when they get x-rays at the dentist), and to lie still in certain positions—on his stomach, his side, and his back—so that vets and technicians can use a portable x-ray machine to get the images they need.

Bright Bird

Another highlight for Vogel is working with the Zoo's male raven, Chogan. "Ravens are extremely smart and good at solving problems. In the wild, they're one of the few animals that will use tools to get food." At the Zoo, she gives Chogan problems to solve, like stacking rings on a post in a certain order. "It's like a puzzle that keeps him engaged and mentally stimulated."

The All-Americans

Vogel's favorite part of the job is when people—especially kids—talk to her about their experience with American Trail species in the wild. "It's a huge reason why I wanted to work at American Trail," she says. "I get to work with animals that live right here in America, sometimes in the backyards of people visiting the Zoo. That gives me an awesome way to connect with the public. I can tell them exactly what they can do to protect these animals in the wild, and it allows the public to have a deeper connection with the animals they see here. That's exactly why I do what I do."

At American Trail, you can see brown pelicans, bald eagles, North American beavers, gray wolves, California sea lions, gray seals, harbor seals, common ravens, and wood ducks.

—JEFF GARIGLIANO

June Member Celebration

Saturday, June 24, 2017
9 a.m.–12 p.m.

Join us and enjoy a fun-filled morning featuring animal presentations, special activities, prizes, a member update, and more!

Register online at **fonz.org/membernews** to take part in this annual members-only event.

FONZ RESOURCES

fonz.org

Member/Donor Information
202.633.2922

Special Events
202.633.4470

Corporate Events
202.633.3045

Camps and Classes
202.633.3024

Public Programs and Volunteer Services
202.633.3025

Comments? Questions?
Please email us at
fonzmember@si.edu

Not a FONZ member yet?
Call 202.633.2922
or go to
fonz.org/join

EMILY PORTER/NZP

FONZ Children's Classes

EMILY PORTER/NZP

Learning is WILD at the National Zoo!

FONZ classes use hands-on activities, crafts, and the Zoo's animal collection to help your child learn about environmental conservation and life science while strengthening important developmental and social skills. Whether you prefer a regular, weekly experience with your child or a one-time event for the family, you are sure to find a class to suit the needs of your young animal lover. Classes for ages 2-13 are now available.

PLEASE NOTE: classes do not include behind-the-scenes visits or direct contact with the animals, but do use touchable artifacts (pelts, bones, feathers). For everyone's safety and enjoyment, unregistered children may not attend, with the exception of non-crawling infants.

Highlights for the spring are listed below. You can see a full list of all classes and register at **fonz.org/classes**.

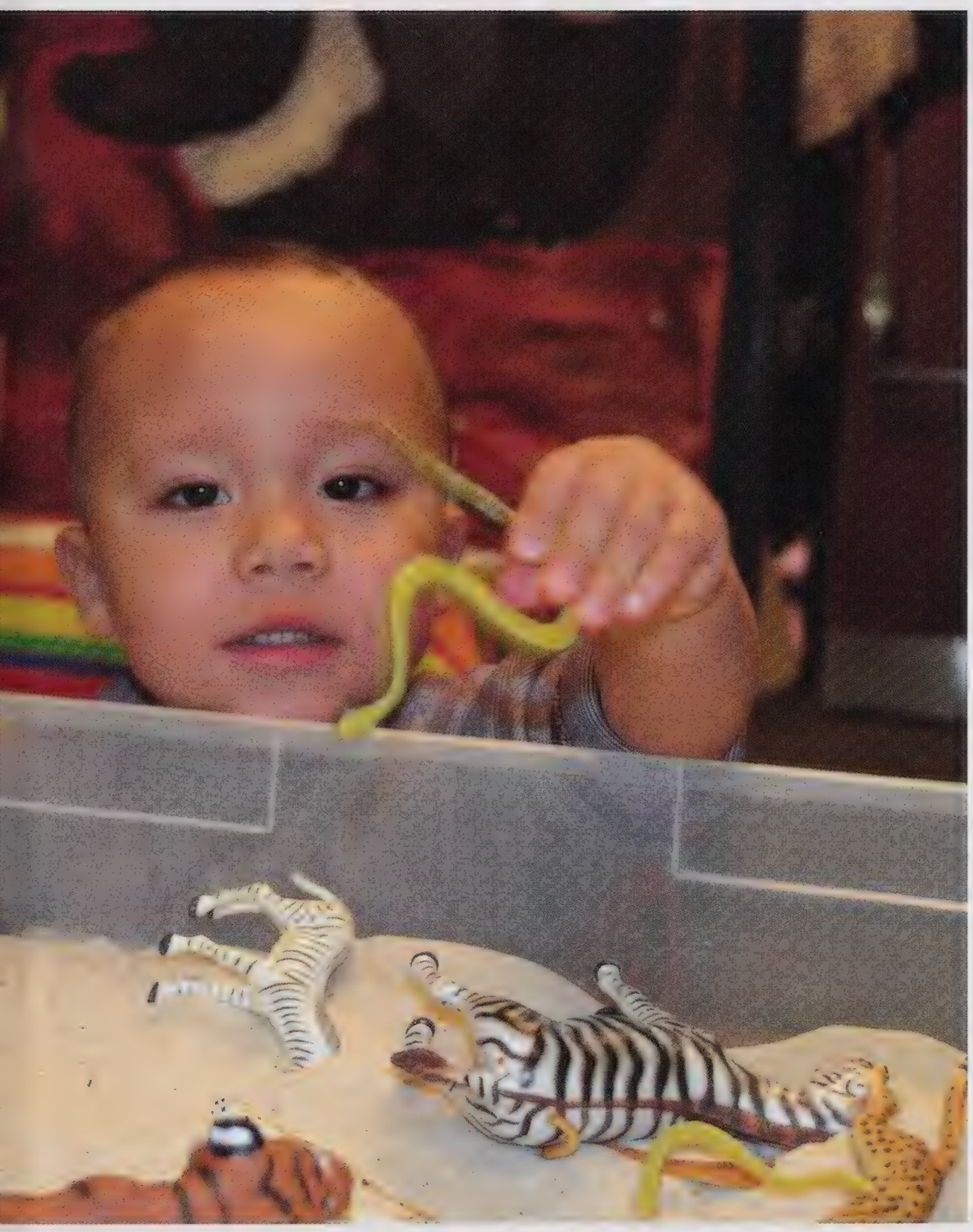
Nature Cubs and Homeschool Class Series:
$150 (members)
$188 (non-members)

Weekend Classes:
$28 per child (members)
$35 per child (non-members)

FONZ Members Save

Enter discount code **TIGER2017** at the checkout screen to secure the member rate.

fonz.org/classes



EMILY PORTER/NZP

Thank you to the SunTrust Foundation for its generous support of FONZ Summer Safari.

HOMESCHOOL CLASSES (Ages 5-13)

Homeschool Classes at the National Zoo investigate a new theme each academic year. Each class series will explore a different biological class of animals. Hands-on science experiments, inquiry-based learning, and Zoo Walks led by our expert teachers bring these concepts to life and address Next Generation Science Standards.

Marvelous *Mammalia* (Mammals)

From the very small to the very tall, many marvelous mammals call the Zoo home. Get ready to comb through the wide variety of our furry friends as we explore what makes it so wonderful to be warm-blooded.

Time: Mondays 10:30-12:30 (ages 5-9) or Thursdays 10-12 (ages 7-13)

Dates: Feb. 27-Mar. 30

No-Bone Zone (Invertebrates)

Discover the incredible diversity of invertebrates, do some hands-on ecology studies of local inverts, and learn how the tiniest creatures help scientists make huge discoveries about the health of our planet.

Time: Mondays 10:30-12:30 (ages 5-9) or Thursdays 10-12 (ages 7-13)

Dates: April 24-June 1

See **fonz.org/classes** for event pricing

NATURE CUBS CLASS SERIES

Nature Cubs classes meet once a week for five weeks and invite children to build their knowledge of animals and the natural world while strengthening important academic, developmental, and social skills. Saturday morning sessions now available!

Ages 2-3 with adult

1, 2, 3 to the Zoo!

All aboard the Zoo Train! Eric Carle's beloved animal counting book comes to life with lions, crocodiles, seals, and more. We'll add a new animal to our own Zoo Trains each week.

Feb. 27 - April 1 (M, T, W, Th, F, or Sa sessions, 10-11:30 a.m.)

Backyard Buddies

Discover the Zoo in your own backyard this spring! Each week, we will explore a new animal friend that makes its home in the same place we do! Meet the neighbors on this backyard safari!

April 24-June 3 (10-11:30 a.m.; Saturdays, 9-10:30 a.m.)

Ages 3-5 with adult

Feasts With the Beasts

This is a class you can surely sink your teeth into. Learn about our favorite animals' favorite foods while satisfying your appetite for learning. Tuesday or Wednesday sessions.

Feb. 28-Mar. 29 (1-2:30 p.m.)

The Magic Zoo Bus

Where will the bus take you? All around the Zoo! Hop onboard for this wild ride as we learn about animal movement. Honk if you love animals! Tuesday or Wednesday sessions.

April 25-May 24 (1-2:30 p.m.)

WEEKEND FAMILY PROGRAMS

Weekend family programs are single classes designed for children and adults to enjoy together! Interactive stations and a hands-on discussion get you ready to visit the animals of the day.
(More programs online at **fonz.org/classes.**)

Ages 2-3 with adult

In Like a Lion

March 5 (10-11:30 a.m.)

Old McDonald Had a Zoo

March 12 (10-11:30 a.m.)

Who's in the Egg?

March 19 (10-11:30 a.m.)

Littlest Critters

April 2 (9-10:30 a.m.)

Curious George Goes to the Zoo

April 15, 22, or 23 (9-10:30 a.m.)

Meerkat Mania

April 30 (9-10:30 a.m.)

Splish-Splash, Sea Lion

May 7 (9-10:30 a.m.)

Spots and Stripes

May 14 (9-10:30 a.m.)

Ages 3-5 with adult

Leapers Creepers

Leap into learning with the Zoo's reptiles and amphibians and make a toad abode to take home!

March 26 (10-11:30 a.m.)

Superman-imals

Meet the most amazing superman-imals of the animal kingdom!

May 21 (9-10:30 a.m.)

Ages 4-6 with adult

Wild Kratts

Get ready for a special Zoo mission: learning about animals with real creature power technology!

April 8 or 9 (9-10:30 a.m.)

FRIENDS OF THE NATIONAL ZOO SNORE & ROAR

SMITHSONIAN'S NATIONAL ZOO

SNORE & ROARS ARE NOT JUST FOR KIDS! Adult-only programs include a keeper-led tour of an exhibit area, wine and cheese, activities, a guided tour of the Zoo, and a breakfast snack.

Find a schedule and register for an adult-only Snore & Roar online: **fonz.org/SnoreandRoarAdults**

Falling asleep as wolves howl, waking up to the roar of lions—it sounds like fantasy, but it's reality for Snore & Roar campers at the Zoo. Your overnight adventure will include a keeper-led tour of an exhibit, activities and games, a tent on Lion/Tiger Hill, and a breakfast snack. It's a wild, wonderful opportunity to have the Zoo to yourself after hours.

Find a schedule and register at **fonz.org/snoreandroar**

FONZ MEMBERS ONLY!
Don't forget to use discount code **TIGER2017** at checkout to receive the listed member rate!

REGISTRATION Priority registration for Premier Plus and above level FONZ members starts on March 28th at 10am. Registration for all FONZ members begins on April 4th at 10am. Public registration opens on April 11th at 10am.

Snore & Roars are a rain-or-shine event.

FAMILIES:
$140/person for FONZ members
$168/person for non-members

ADULTS:
$150/person for FONZ members
$180/person for non-members

Tour Choices

Enjoy an exclusive, keeper-led tour of Zoo exhibits, including American Trail, Reptile Discovery Center, and the Small Mammal House. Below are just a few highlights.

Find a full list and register online at **fonz.org/snoreandroar**

Asia Trail Wonder where those adorable Asian small-clawed otters go at night? Join us for an Asia Trail Snore & Roar and find out! You'll be toured around the trail with front of house views of the elusive clouded leopards and the crafty red pandas. See the slurping sloth bears and sneak a peek at Mei and the family with a stop at giant pandas! (Please note: We cannot guarantee that Bei Bei will be visible.)

Elephant Community Center Largest of the living land animals, elephants continuously fascinate us with their grand size, complex social structure, and curious demeanor. Come meet the members of our growing Asian herd and learn how the Zoo cares for these magnificent, giant herbivores.

Great Cats/Farm Lions and tigers and cows, oh my! It's carnivore meets herbivore in this dual action overnight experience. Learn all about our feline royalty and see how the keepers care for these majestic cats. Then moooove on over to the Kids' Farm and receive a hands-on lesson in how to care for farm animals here at the Zoo.

CONNOR MALLON/NZP

MEHGAN MURPHY/NZP

COMING THIS

FRIENDS OF THE NATIONAL ZOO

SCOUT SNOOZE ZZZZZ

FONZ members only!

EMILY PORTER/NZP

Bring your troop for a wild night they won't soon forget! Where else in D.C. can you fall asleep to the sounds of the wolves howling or be awakened by the bark of the sea lions at play? Your Scout Snooze includes evening and morning snacks; a 1.5 hour, keeper-led tour of an exhibit area; and a variety of activities, games, and a guided tour of the Zoo. Scout groups sleep in four or six person tents on Lion/Tiger Hill. Scout leaders are responsible for tent assignments.

Scout Snooze sleepovers are available to FONZ members only: To register, at least one adult per scout group must have a FONZ membership.

Find a schedule and register for a Scout Snooze online:
fonz.org/scoutsnooze

AGES Children ages 6 and older. All children must be at least 6 years old by the date of the program. No refunds will be granted for registrations involving children under 6 years old.

A paying adult must accompany all participants under 18, and one adult chaperone is required for every three children.

FEE $900 for up to ten people. $90 for each individual above ten. Maximum of twenty participants total (adults included).

REGISTRATION Priority registration for Premier Plus and above level FONZ members starts on March 28th at 10am. Registration for all FONZ members begins on April 4th at 10am.

Find a schedule and register for a Scout Snooze online:
fonz.org/scoutsnooze

EMILY PORTER/NZP

Amazonia The rainforest comes alive at night with the sounds of our favorite nocturnal creatures. Hear a chorus of calls from frogs and toads, and learn all about the growing importance of amphibian conservation. See a fish feeding frenzy and maybe even catch a glimpse of white-eared titi monkeys. It's a sensory experience your group won't soon forget!

Small Mammals There is never a dull moment at the Small Mammal House. With so many creatures, there is always something to see! Join us for your chance to watch the sloths come to life, see enrichment at work, and meet a furry little friend.

Reptile Discovery Center A place where dragons still roam and alligators call home. Join us for one of the most interactive behind-the-scenes experiences available at the Zoo. You'll see tortoises grazing and get up close and personal with some of the coolest, scaly beings around. You don't want to miss it!

FALL FONZ 5K

MAY IS MEMBER MONTH!

We will be celebrating you—our FONZ members—the whole month. Join us at the Zoo for special members-only events, including:

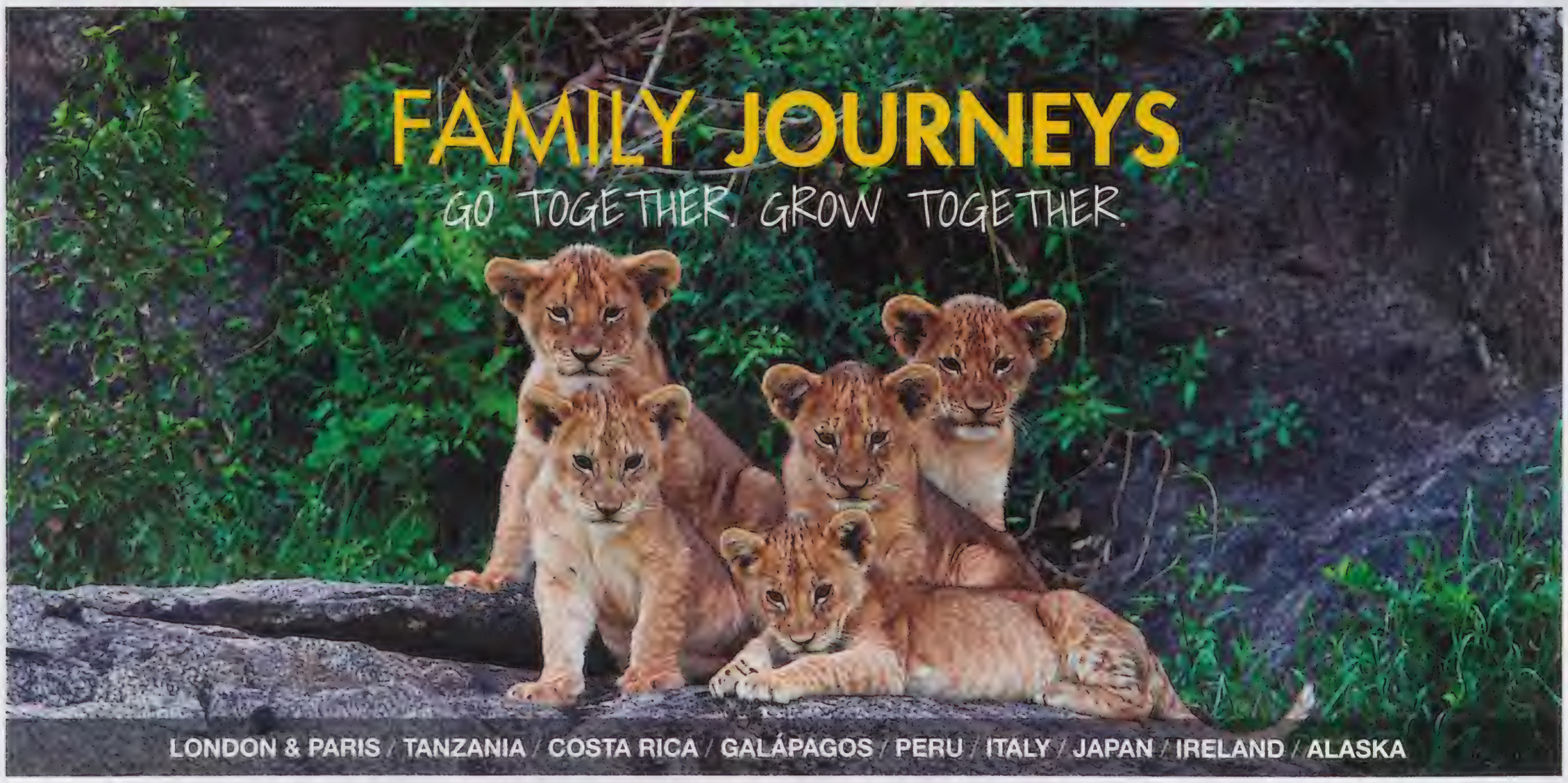
- animal enrichment activities
- exclusive access to an animal exhibit
- special discounts and giveaways
- and much more!

Get the event schedule and details:
fonz.org/membermonth

Renew in May and get two months FREE!

That's 14 months of great benefits. Offer valid for online and in-person sales.

RHONDA GREGORIO/NZP



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CONNOR MALLON/NZP

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CONNOR MALLON/NZP

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Percent paid/requested circulation	97%	97%

ANTHONY BRAUN/NZP

ANTHONY BRAUN/NZP

A Hack to Prevent Poaching

Last fall, the National Zoo was one of several leading institutions to take part in Zoohackathon. Sponsored by the U.S. Department of State and the Association of Zoos and Aquariums, Zoohackathon is an intense, 24-hour contest where teams of software coders come up with highly practical apps and tools to prevent wildlife trafficking.

Wildlife trafficking has seen a huge spike all over the world in recent years, threatening the population of species like elephants, tigers, and rhinos. (Some 33,000 elephants are killed each year by poachers.) Conservation leaders in the field can potentially use technology to fight poaching, but they need the right tools—and the right support from people living nearby.

Wildtrack allows people living nearby to report poaching through a simple text message on a basic mobile phone.

As part of Zoohackathon, teams at the Zoo worked to develop a solution in just one day. Other participating organizations included zoos in San Diego, Seattle, St. Louis, London, and Sydney.

The winning project, developed by a team in San Diego, was an app called Wildtrack. It works with existing software that professionals use in the field to report conservation data. That software is extremely sophisticated, but Wildtrack allows people living nearby to report poaching through a simple text message on a basic mobile phone. The app works with multiple languages—even symbols—and it automatically analyzes the text for keywords that determine how immediate the threat is. The app also logs incident details, and integrates everything into an existing database for law-enforcement organizations.

The idea is to provide local communities with an easy means to report poaching incidents, information on local poachers, and details of human-wildlife conflict. The judges were impressed that Wildtrack is user friendly, sustainable, and can be implemented on both large and small scales.

The app is still in development but is scheduled for release later this year.

—SARAH BELLINGER

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JON MCRAY/FONZ PHOTO CLUB

New Face in the Trees

Wild night herons have nested each spring at the Zoo for as long as anyone can remember. They've always been the black-crowned variety. In recent years, though, a few yellow-crowned night herons—a different species—have joined them.

FONZ Photo Club member **Jon McRay**, a dedicated and gifted chronicler of the Zoo's avian wonders, captured this thrilling image of one of the new arrivals.

McRay also took the stunning flamingo photo that graced the cover of your 2017 FONZ calendar. To our chagrin, we mistakenly credited it to another photographer, so we're keen to give McRay his richly deserved credit—along with our thanks for sharing his work with us.

JON MCRAY/FONZ PHOTO CLUB

Technical Notes —

CAMERA: NIKON D4;
LENS: NIKKOR 600MM F/4 LENS WITH 1.4X TELECONVERTER;
ISO: 800; **EXPOSURE:** 1/1250 SECOND AT F/7.1

Share Your Photos!
Smithsonian Zoogoer welcomes FONZ members' submissions of photos taken at the Zoo. Please send photos to **Zoogoer@si.edu** or post to @FONZNationalZoo on Twitter, Instagram, or Facebook. Your photo may be featured on the Zoo View page.

Join the Club! Membership in the FONZ Photo Club is open to photographers of all skill levels. The group meets monthly to hear guest speakers and to share and discuss members' work. Learn more at **fonz.org/photoclub.**

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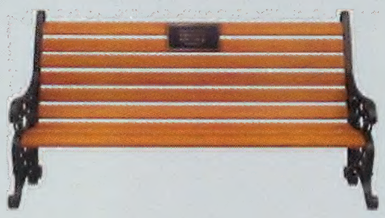

Zoo benches are a great way to celebrate people who like animals. And sitting.
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